

63.84
Africa
1896-1920

AGRICULTURAL INVESTIGATION LIBRARY
RECEIVED
SEPS 1918 *

18.

SEASON 1917.

ILLUSTRATED DESCRIPTIVE CATALOGUE AND PRICE LIST OF FRUIT TREES

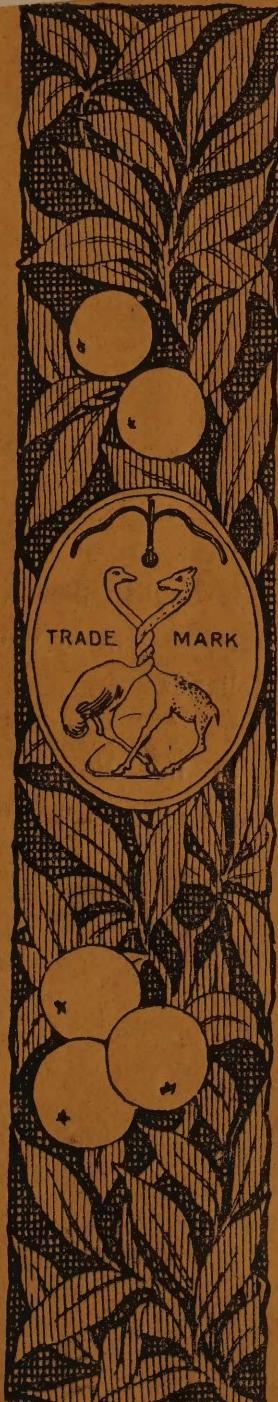
TRADE MARK



GROWN BY THE FIRM OF
H.E.V. PICKSTONE & BROTHER LIMITED.



GROOT DRAKENSTEIN
VALLEY NURSERIES,
CAPE OF GOOD HOPE.



Dutch

If you prefer this Catalogue in English please let us know
when a copy will at once be sent to you.

Hollands

Indien u deze Catalogus in het Engels wilt hebben
wees dan zo goed het ons te laten weten, dan zenden
wij u een exemplaar.

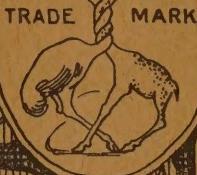


H. E. VICKERSTON & BROTHERS LTD.

'MILED'

SEASON 1917.

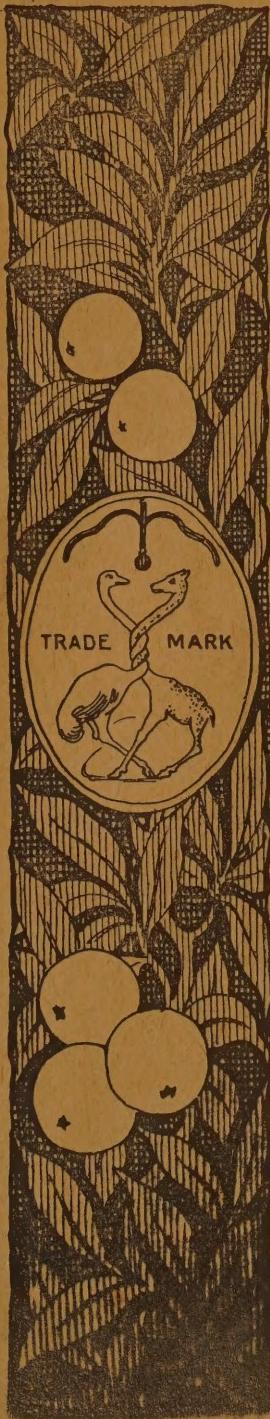
**ILLUSTRATED
DESCRIPTIVE
CATALOGUE AND
PRICE LIST OF
FRUIT TREES**

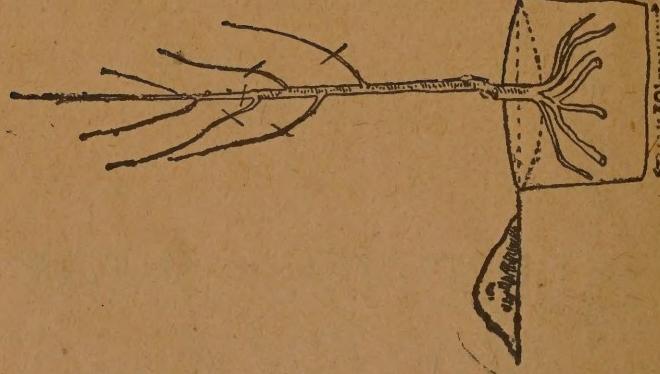


**GROWN BY THE FIRM OF
H.E.V. PICKSTONE
& BROTHER, LIMITED.**



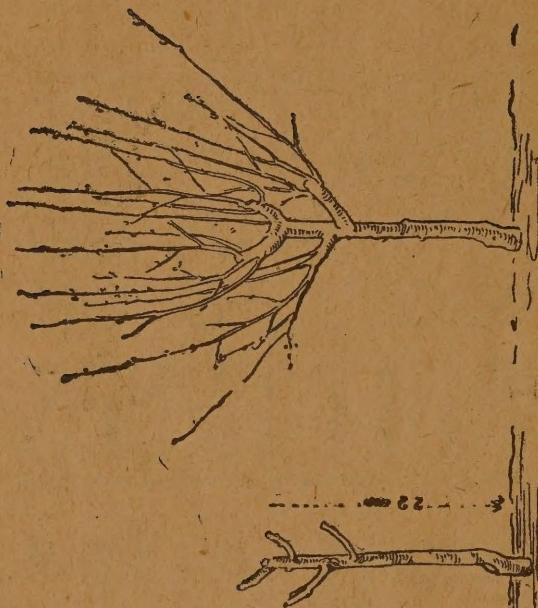
**GROOT DRAKENSTEIN
VALLEY NURSERIES,
CAPE OF GOOD HOPE.**





SECTION OF GROUND *after Planting*.

The dotted line above the roots represents the basin to be left after planting, and which is to be filled with water, which, when the water has soaked away, is filled with the remaining ground shown on the left. If the planting is followed by a good rain it will be unnecessary to apply water.



View of same tree after having been cut back, which should be done immediately after planting.

Same tree after its first season's growth.

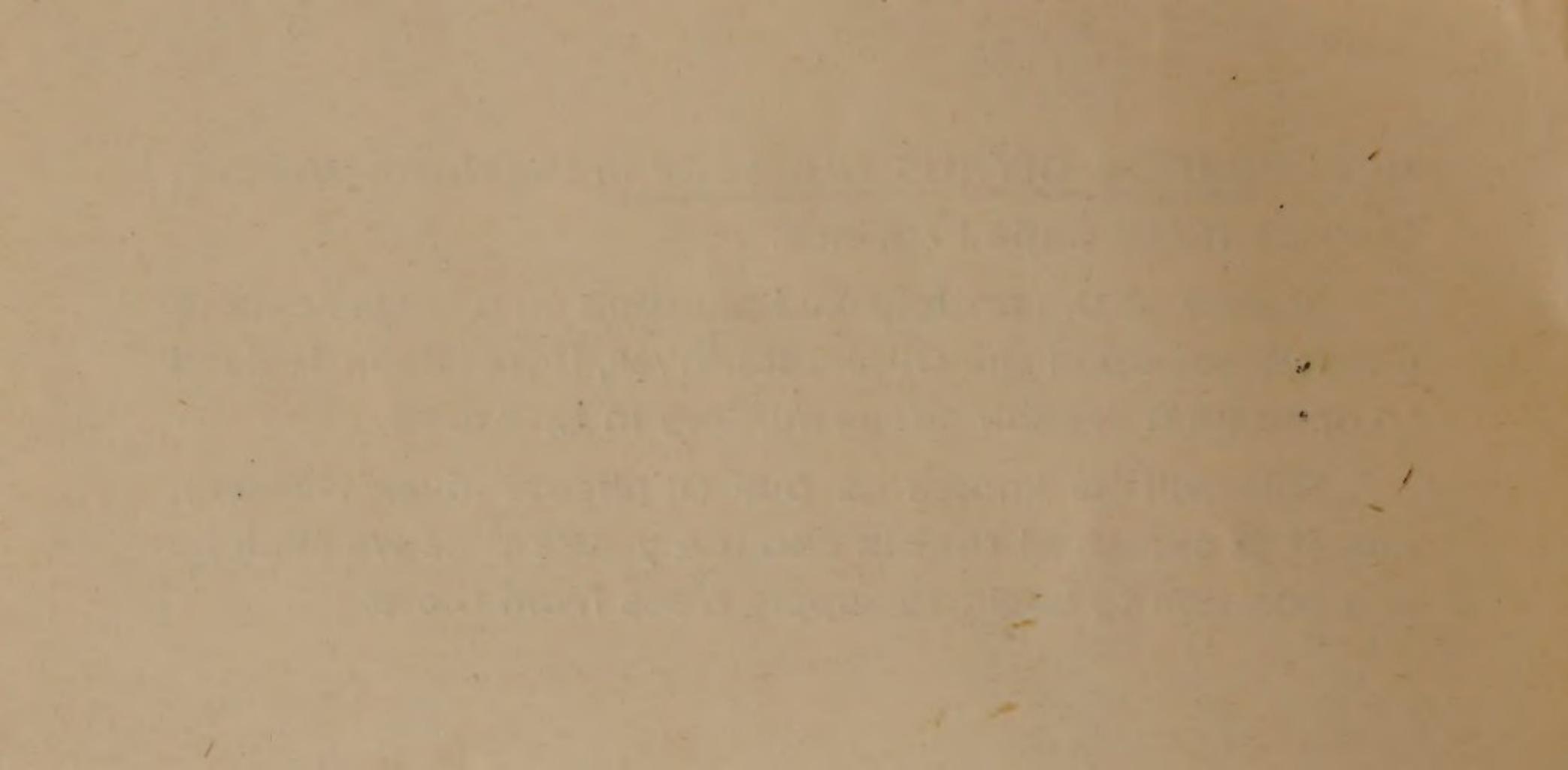
PLAN

showing Size of Hole, Method of Trimming the Roots, Planting, Watering and Pruning all Yearling Fruit Trees.—The same applies to the planting of two-year-old trees, excepting that the Pruning is not quite so close.

NEW BRANCH CITRUS NURSERY in the North-Western
District of the Cape Province.

In view of the anticipated planting on a large scale of citrus trees upon the Oliphants River, it has been decided to open up a branch citrus nursery in that area.

This will be known as our Oliphants River Nursery, and it is expected that in about a year's time we shall be in a position to begin to supply trees from there.



Contents.

| | | | |
|--|----|--|----|
| To our Customers ... | 4 | Quinces | 42 |
| "Hints on Fruit Growing" | 5 | The Loganberry | 42 |
| Introduction ... | 6 | Figs ... | 43 |
| To Correspondents ... | 9 | Deep rooting of Peach Trees | 44 |
| Trees by Parcel Post ... | 11 | Vines | 45 |
| Price List of all Fruit Trees and Vines ... | 12 | Descriptive List of Vines | 46 |
| Free Delivery Clause ... | 13 | Citrus Trees | 47 |
| Guarantee of Genuineness and Conditions of Sale | 13 | Packing | 47 |
| Extra Sized Trees ... | 13 | Treatment on Arrival ... | 48 |
| Orchards can be planted when land is dry ... | 14 | Time to Plant and Simple Directions for Planting | 48 |
| Cold Storage of Trees ... | 15 | Deep Planting | 51 |
| Deep Planting of Trees ... | 15 | Responsibility for loss after Trees are shipped | 51 |
| Summer Planting of Fruit Trees | 15 | Cancellation of Orders for Citrus Trees | 52 |
| Cancellation of Orders already booked ... | 16 | Descriptive List of Citrus Trees:— | |
| Deciduous Trees... ... | 16 | Oranges | 52 |
| Treatment of Deciduous Trees on arrival ... | 16 | Grape Fruit ... | 54 |
| Descriptive List of Deciduous Fruit Trees:— | | Lemons | 55 |
| Apples | 18 | Limes | 55 |
| Pears | 25 | Nartjes | 55 |
| Peaches | 29 | Kumquat ... | 56 |
| Chinese Peaches | 34 | Citrons | 56 |
| Nectarines ... | 34 | Site for Citrus Orchard | 56 |
| Apricots | 35 | Setting out an "Orange Grove" | 58 |
| Domestic Plums | 36 | Stocks | 59 |
| Japanese and Oriental Plums ... | 37 | Improvement in Varieties | 60 |
| Prunes | 39 | "Penny Wise and Pound Foolish" | 62 |
| Cherries | 40 | VALUABLE TABLES ... | 64 |
| Walnuts | 41 | TESTIMONIALS ... | 65 |
| Almonds .. | 41 | | |

TO OUR CUSTOMERS

From year to year we have had occasion to thank our old clients for their continued support and for the consistent confidence they have placed in us. Again we wish to do so, and also our many new customers who have placed their orders with us for the first time last season.

Owing to the conditions of war tree-planting last season was in some degree restricted, the result being a considerable shortfall in the number of trees that we despatched from our nurseries as against season 1914.

In our last season's catalogue we pointed out to planters that war conditions should not interfere with the planting of their orchards, as long before trees planted now come into bearing the world would be at peace, and it is further an undoubted fact that it will be more essential than ever before for us all to work hard at all kinds of agricultural development, of which fruit-tree planting is one of the most important directions, as the fabulous wastage of property of every kind by war can only be countered by work—hard work—and the enlightened investment of capital.

Every thoughtful man to-day recognises that year by year fruit is becoming daily more popular as an actual food, and the statistical returns showing the production and consumption of fruit in the leading countries of the world would prove an eye-opener to that poor-spirited person who refuses to plant fruit trees because the business will be overdone.

With these facts before us and with increased home consumption of fresh fruit within the Union, with an export, both Citrus and Deciduous, with our dried fruit, our canning, and our jams, we can with every confidence still assure growers, what we have consistently assured them for a quarter of a century, that there is no better investment within the Union than a well-cared-for orchard planted on suitable soil and grown under suitable conditions by a sensible, level-headed man.

There are incorporated in the catalogue a new series of pictures recently taken, and mainly of the nursery. These will

For Prices see page 12.

give an idea of the extent of our new nurseries, which are devoted entirely to the raising of fruit trees.

H. E. V. PICKSTONE & BROTHER, LIMITED.

P.O., Simondium, Cape Province,

1st March, 1917.

RAND REPRESENTATIVES AND DEPOT.

For the convenience of clients, we are represented in Johannesburg by the Waverley Nurseries, P.O. Box 4820. 'Phone 858, Yeoville, Johannesburg.

Clients may rely upon most careful attention.

Orders may be booked through them at our prices, and they are always willing to help with advice, etc., out of their long experience of Transvaal conditions, any clients who consult them. Orders of upwards of 50 trees will be sent down to Simondium for execution, and a large stock of selected trees is always kept during the planting season at the depot at Waverley, thus enabling intending purchasers to make a personal selection, and to inspect our trees. Orders of less than 50 trees can be supplied direct from the depot, thus saving the cost of railage, clearance charges, etc., on small orders.

"HINTS ON FRUIT GROWING."

By H. E. V. PICKSTONE.

A Sixth Edition of this little book, published in both English and Dutch, is now ready. We feel that all planters of fruit trees should have a copy, and this we shall be pleased to send free of all expense to any grower who cares for one.

We are convinced that a perusal will obviate many mistakes, and much valuable information on all matters pertaining to the Fruit Industry from the experience of many experts is compiled herein. Also it contains the advertisements of many of the leading firms who stock fruit-growers' supplies, and is of considerable value as a reference book on most matters pertaining to fruit growing.

For Prices see page 12.

INTRODUCTION.

It gives us great pleasure to submit our Twenty-Third Annual Catalogue to the South African Public interested in fruit-growing.

Our nurseries contain well over 1,000,000 deciduous and citrus fruit trees and vines in various stages of growth.

We are glad to be able to note the fact that our many customers are acting on our advice, repeatedly given, to order their trees earlier. We frequently now receive and book orders for trees for July and August delivery, many months in advance, *no deposit of cash whatsoever being necessary*, and in this way our customers are more likely to get just what they wish in varieties on which there is a big run.

Our business is South African, meaning that orders for trees which are to be planted North of the Zambesi, or in Natal, come in side by side with those for the gardens of suburban Cape Town.

It is, in fact, more than South African, as we have opened up considerable business with Central, East and West Africa, both British and Portuguese, Uganda, St. Helena, the Belgian Congo, Europe, etc., etc.

We shall (outside of the selling season) always be pleased to assist our customers with information in any way we can; it is *distinctly a pleasure for us to do so*. Purchasers must remember that as our trees are sold under a guarantee of genuineness, all interest is *not* lost in them directly payment for same is received, but careful account, dating back for twenty years, is kept of the particulars of each consignment. Our *Clientèle* can, therefore, at any time (if they lose track of the varieties purchased) get a duplicate from us to put them straight.

If you should have any complaint to make on receipt of consignment, we should *esteem it a favour* if you will make it, *and without delay*, as mistakes will occasionally occur.

Our trees are—as always—sold by height, as specified on page 12. In order to avoid misunderstanding the height is reckoned from bud or graft; great care will be taken to have the grading liberally done.

Our shipping season commences end of May and continues till September, or, with the aid of cold storage, until end of October.

Regarding the respective value of the different sizes of trees, both have exceeded expectations of buyers. It is usually considered that the first size trees are easier to transplant.

Our stock includes the leading Californian, Australian and European and South African varieties.

A great many of our customers leave their selection entirely to us; we try to merit their confidence in this respect by following up the history of varieties in the several countries and districts. A great deal of planting, however, has now been undertaken all over the country; and we feel sure that the first thing intending planters of orchards should do, is to ascertain the behaviour of the different classes and varieties in their immediate neighbourhood. After posting yourself on the results of your neighbours' plantings, it will be time to communicate with us, informing us of the result of your inquiries, and as to how you intend disposing of the product; whether in its green state, by canning, sun-drying, or evaporating, or as a home orchard only; we shall then be placed in a position to give you advice, which we trust will be of value to you.

Our assortment this season is increased by only one or two new varieties, which it is considered were necessary in Africa. We do not accept the benches at Pomological Societies' Shows as our guide to the value of a sort; as the practical side of the behaviour of a fruit is here rarely, if indeed ever, considered; size and flavour being the usual criterion of merit, commercial planters must always remember that this is for them a most unsafe guide. Their requirements are a fruit which gives a regular and uniform crop of a variety which is acceptable to the consuming market, &c., and which brings a paying price; such varieties are sometimes neither in the first rank in size or quality.

Our description of varieties can be relied upon with a fair degree of accuracy, being drawn from such authorities as Dr. Hogg, the English, and Mr. Charles Downing, the American Pomologists, but mainly from actual South African data.

Clients must, however, remember that varieties occasionally vary in the matter of colour, size, etc., in different parts of the country owing to climatic and other differences. This refers also to their date of ripening.

Owing to the prevalence of the Woolly Aphid, or American Blight, throughout South Africa, we have found it necessary

For Prices see page 12.

to work all our apples on to Blight-proof stock. We use almost entirely the Northern Spy stock of our own growing. We have now for 23 years had experience of this stock in all parts of South Africa, and can say that it has proved absolutely Blight-proof and is suited to all the varying climatic conditions and soils of this country.

All Apples on Blight-proof stocks, are guaranteed to be as described and sold, and are absolutely Blight-proof up to the bud or graft, which is generally about 12 inches above ground level, thus insuring against any possibility of the Blight getting below the ground.

Of course (with the exception of a few varieties which are absolutely immune from blight both root and branches) it must not be expected that the branches of varieties will remain clean from attack simply because the trees are worked on blight-proof stocks. It will, however, be sufficiently plain to clients that it is comparatively easy to eradicate blight from branches whereas it is almost an impossibility to remove the blight once it has got into the roots, which it can never do if the trees are on Blight-proof Stock. We give this information as we have on several occasions found misunderstandings occurring on this point.

The pears are worked on seedling pear stocks only.

The plums are on myrobolan root for badly drained, moist and low-lying, or cold soils; and on peach for high, warm and well-dried situations. It is quite an important matter that planters should note the different adaptation of roots to soils, as we have seen several orchards planted on peach where plum root should have been employed, and *vice versa*; which will never be altogether successful, simply through a neglect to order on these lines.

Further, it must be mentioned that many varieties of domestic plums and several varieties of Japanese plums will not make a sound junction when worked on Peach stock and *vice versa*. These are technical points which must not be overlooked, and purchasers should rely on their nurseryman to use his best judgment thereon.

The peaches are worked on peach stock only; we have discarded all other stocks for the peach.

TO CORRESPONDENTS.

PLEASE READ VERY CAREFULLY BEFORE ORDERING.

1. All correspondence should be addressed to H. E. V. Pickstone & Brother, Limited, P.O., Simondium, Cape Province.

All Money Orders payable at PAARL or SIMONDIUM.

Bankers: Standard Bank, Paarl.

Telegraphic Address: "Pickstone, Simondium."

Telephone: No. 12, Simondium.

2. *Customers will oblige us very much by using, as far as possible, the printed order form annexed. We have inserted it in duplicate as so many clients send in several orders, either for themselves or friends.*

When many hundreds of orders are received, prompt despatch is greatly facilitated thereby. However, if this is not possible, please write your order legibly on a separate sheet and not mixed up in the body of the letter.

3. All orders should be sent in as early as possible. It costs you no more money to order early, and customers will in this way avoid many disappointments.

4. All orders are carefully labelled and securely packed in the best manner, for which a moderate charge (which does not nearly cover the cost) will be made—3s. per 100, or £1 per 1,000. Citrus trees, when put up in specially constructed cases in the manner in which we usually pack same, will be charged for at 6s. per 100. Our smallest size of citrus crate holds from 10 to 18, depending on size of trees. If an order is for less than 10 trees, they are packed in a bale instead of crate, therefore it is better, when convenient, to make the order up to not less than that number, as the trees usually travel better in a crate. The charge for packing the small size crates is 1s. 6d.

5. We must emphasize the fact that all orders are at the risk of the purchaser after being put on rails. We must not be held responsible for any loss or delay that may occur through the negligence of the forwarders.

6. Kindly specially note that it is very difficult to hold back trees standing in the nursery beyond the end of August. This is, of course, dependent on the season, and the component parts of the order. For instance, Apples can be readily held back until later, but the sap rises in Almonds, Quinces, and certain varieties of Peaches much earlier. It must, therefore, be distinctly understood, between buyer and ourselves, that we shall, if necessary, in the interests of our client, send on the order at the

latest date possible. In any instance we shall inform our client to this effect by wire so that he may have opportunity to prepare the land.

7. Our customers are requested to notify us, *immediately on receipt of consignment*, of any mistakes that might have occurred in their order, or any overcharge or other error in their invoices, and we will at once gladly rectify the same, as we desire to conduct our business in every way satisfactory to those who may favour us with their confidence.

8. Where particular varieties are ordered, and particular sizes, kind of stock, &c., it should be stated whether, and to what extent substitutions will be allowed in case an order cannot be exactly filled, as sometimes happens in all establishments. In case no instructions to this effect accompany the order, *we shall feel at liberty to substitute other varieties as nearly as possible similar to the original order*, never, however, supplying stuff at a higher price than that of the original order.

9. If no substitution is desired, write "*No substitution*" on order sheet, and we will fill only as far as we have the stock.

Should a customer wish a certain number of first-size trees of a particular variety, and we find we are short of the larger size, second size of trees, at the cheaper rate, will be sent to fill the order, *unless instructions are given to the contrary at the time of ordering*. But first size trees, at the higher rate, will never be substituted for second size trees without the sanction of purchaser.

When the selection is left to us, customers should state what proportion of early, medium or late fruit is wanted. *Please remember this.*

Clients are requested to kindly write their full postal address on each communication, as we find occasionally delays occur through insufficiently addressed letters.

Our terms are nett cash on receipt of consignment.

A deposit on account, or references, are desirable from new clients.

TO CLIENTS IN BRITISH EAST AFRICA, UGANDA PROTECTORATE, BRITISH CENTRAL AFRICA, PORTUGUESE WEST AFRICA, MOZAMBIQUE, AND OTHER FOREIGN PARTS.

—When ordering trees it is necessary to state the Port to which clients wish them shipped, and also desirable that we are given the name of a Forwarding Agent who will receive the trees, clear them and reconsign them to their ultimate destinations. If no Forwarding Agent is given we shall consign to our own Agents at the Port.

Accounts for freight are rendered by the following mail. Remittances may be made by bank draft, or by Money Order on Simondium Post Office.

TREES SENT BY PARCELS POST.—Under the Post Office Act clients are enabled to have their trees sent by Agricultural Parcels Post in the Union of South Africa at nominal rates. The charges are as follows:—

| | |
|---------------|------|
| Up to 1½ lbs. | 3d. |
| Up to 3 lbs. | 6d. |
| Up to 6 lbs. | 8d. |
| Up to 9 lbs. | 10d. |
| Up to 11 lbs. | 1/-. |

A package of 11lbs. would contain about 20 2nd-size trees or 12 1st-size.

We charge 1/- per bale for packing.

Orders for 50 or more trees by *Agricultural Parcels Post will be sent postage free* to any Post Office in the South African Union.

It will be seen that clients at a distance can get their trees in some cases cheaper by post than by rail. We may mention that for Parcel Post orders we have to select the lighter trees. In fact, for first size post trees, we select large second size trees, and for second size post trees we select small second size trees. We therefore recommend our clients to have their trees sent by rail whenever convenient.

Parcels Post is very well suited for the transportation of small orders for Citrus trees. By this method orders for Orange and Lemon trees can be sent with a considerable degree of safety quite cheaply. It should be noted that as Citrus trees are packed for post they are partially deprived of their leaves, so that when they are unpacked and planted out it is especially necessary to shade the stems either by a thick coating of whitewash, or by a jacket of straw as recommended later in this Catalogue.

The above rates of Postage apply only to places in the South African Union, including Basutoland and Swaziland.

TO CLIENTS IN RHODESIA.—Please note that when the trees are dispatched the necessary Customs Form is at once posted to consignees together with Advice Note, etc. Clients should wait for this Form, and take it to the station with them when they fetch their trees. If they live a long way from the station it is always best to give us the name of an Agent who will clear the trees for them and thus save them time.

PRICE LIST

— OF —

FRUIT TREES AND VINES.

DECIDUOUS TREES.

Plant from 1st June to 31st August.

Size 1—Over 3 feet in height

Size 2—Over 2 feet in height.

Excepting in the case of two-year old Apple and Pear trees being ready branched these are sometimes a few inches below these heights.

| | Size 1. | Size 2. |
|--|------------|------------|
| Per 1,000 trees | $1/3$ each | $1/-$ each |
| Per 100 trees | $1/6$ each | $1/-$ each |
| Under 100 trees | $1/9$ each | $1/3$ each |
| Extra sized trees, $2/6$ each, any quantity. | | |

VINES.

On guaranteed Phylloxera Proof Stocks.

Plant from 1st June to 31st August.

$1/-$ each or $\pounds 3$ per hundred.

CITRUS TREES.

Plant any time.

Size 1—Over 2 feet 6 inches in height.

Size 2—Over 2 feet in height.

Size 3—Over 1 foot 6 inches in height.—A convenient size for Parcels Post.

| | Size 1. | Size 2. | Size 3. |
|--------------------|------------|------------|------------|
| 100 Trees and over | $3/-$ each | $2/-$ each | $1/9$ each |
| Between 25 and 100 | $3/6$ each | $2/6$ each | $2/3$ each |
| Under 25 Trees | $4/-$ each | $3/-$ each | $2/9$ each |

A few extra size Trees, $5/-$ each.

All these prices include the free delivery (see next page).

SPECIAL—1st sized Citrus trees by the thousand, $2/9$ each.

THIS PRICE LIST CANCELS ALL PREVIOUS ONES.

For Prices see page 12.

FREE DELIVERY.—CONDITIONS FOR FREE DELIVERY TO ALL RAILWAY STATIONS IN SOUTH AFRICA, SOUTH OF THE ZAMBESI.—We are continuing our carriage-paid delivery of Fruit Trees and Vines throughout South Africa; and all clients who order 50 trees and upwards in the respective sizes, no matter how many varieties may be included therein, will receive them invoiced at the prices as clearly stated elsewhere, at any railway station between Lourenço Marques and Victoria Falls.

On all orders for delivery in Rhodesia north of the Falls and to the Congo Territory we pay railage to Livingstone only.

This clause does not apply to orders which have to be sent oversea. In such cases, carriage will be paid to the port of shipment. Natal orders will, however, be sent per rail.

The 50 trees or over must be sent in one consignment, otherwise they will go forward carriage to pay.

GUARANTEE OF GENUINENESS AND CONDITIONS OF SALE.—Every possible precaution is taken to prevent errors, and consequently while we guarantee our trees to be true to name, we can only hold ourselves responsible to replace such trees as may prove untrue to label or to refund the money received for such trees, and we give no further warranty, nor will we recognise any further liability.

We further stipulate that in cases of orders booked for delivery more than three months ahead we shall not recognise any liability in the event of failure to effect delivery on the agreed upon date, if such failure be caused by the trees failing to grow to standard size owing to adverse weather or other conditions or by their delivery being rendered impossible or impracticable for any other reason.

This guarantee further ensures to clients that all Apple trees sold by us as worked on blight-proof stock are duly worked on such stock; and again, all Vines are grafted on Phylloxera proof stock.

Every precaution is taken by us, and almost all our buds are now cut from healthy bearing trees by one of our principals.

EXTRA SIZED TREES.—As we sometimes receive orders for extra large Deciduous trees, regardless of extra expense, we have thought it desirable to grow certain small lines specially for this trade.

These will be charged for at the rate of 2s. 6d. per tree, and orders for 50 or more trees will be delivered carriage paid to

your nearest railway station. All Apples sent with such orders will be on blight-proof stock.

Should we not have varieties you need in these extra sized trees, we shall complete with ordinary first size trees at the current rate of 1/9 per tree.

ORCHARDS CAN BE PLANTED WHEN LAND IS DRY.—

Over by far the largest area of South Africa, the rains fall in the summer; as a rule, the earlier may be expected in October and November, rarely in September. This makes the risk in planting young trees the first season a slightly greater one than where the rains fall during the planting season. Under the latter condition the tree is planted in moist soil and gets nice rains on it after planting, settling it comfortably to begin its growth. Whereas under the former condition the soil is parched and dry, and great care is needed in planting the tree to see that water moistens all the soil around the roots, and that such soil is kept moist until the first rain comes; if this is not done, a risk of the death of the tree is taken. We touch on this under the head of "Initial Difficulties in Starting an Orchard in South Africa," in our Mr. H. E. V. Pickstone's "Hints on Fruit Growing."

That many planters find this a source of anxiety we are sure; we are continually getting letters during the planting season asking us "to hold back the trees as long as possible as the rains have not yet come." Now, it is impossible to hold back trees, *i.e.*, keep them dormant for an indefinite period under the weather conditions prevailing in September, in either Eastern or Western Provinces; and unless they are absolutely dormant, they should be already planted *in situ* in orchard.

After a wide experience with our trees in the Transvaal, Orange Free State and the Eastern Province, Rhodesia and Natal, where these conditions prevail, we are satisfied that there will be very little, in fact no loss, if the planter will see that, at planting, each tree gets a couple of buckets of water round and between the roots after being set. In applying it, first scoop away the surface soil and pour the water into the hole. When all the water has sunk away, throw back the dry surface soil. Trees treated in this manner should remain moist for a fortnight; and after that time they can be similarly treated every 10 days until the rains come. By that time they should have made a good start with their season's growth.

COLD STORAGE OF TREES.—If, for some reason or other, the scheme mentioned in the above paragraph is impossible, there is the alternative of placing the trees in cold storage. We have made arrangements to do this for the benefit of our customers at cost price, which is 1s. 6d. per bale per week. Size of the bale is not taken into consideration.

Our experiments enable us to guarantee trees dealt with in this way to remain dormant and in fine planting condition until about middle of October, and they most probably may be kept in this way in good condition until November, but it must be understood that when detained so late, we can offer no guarantee.

It must be borne in mind that by taking this course some risk is entailed, particularly when it is desired to hold the trees back till late in the spring, so we would advise planters not to have their trees placed in cold storage unless the suggestion offered in the preceding paragraph about watering the trees until the arrival of the rains is really impracticable.

We find that the middle of August is the best time to place orders in cold storage, and trees can be taken out at any time on our client wiring or writing to us that rain has fallen.

It would also be of great assistance to us, if, at the time of placing orders for cold storage, customers would give us full particulars as to destination and route and ultimate delivery before the trees are sent into the store. If this information is left over until the instructions are received to forward the consignment, a great deal of trouble is brought about in getting the bales correctly labelled, as our trees are cold-stored in Cape Town.

DEEP PLANTING OF TREES.—We specially wish to impress upon planters that trees should be planted in orchard at exactly the same level they stood in the nursery, no shallower and no deeper. We have seen many instances when trees have been planted up to even one foot too deep—such trees will *never* give a good result. An injury to the nurseryman and fatal to the orchardist. Hence this warning.

SUMMER PLANTING OF FRUIT TREES.—We are now, right in the middle of the Summer, receiving quite a number of orders for immediate planting. We advise our clients, who want deciduous trees, that unless they have been

ordered and placed into the cold storage during the winter, we cannot supply them at this time of the year, and we strongly deprecate the planting of trees in growth. If they are healthy trees they must be in strong growth now: and if they are unhealthy, they are not worth planting at all. In reply, we hear that many in the Transvaal are recommending this procedure; and we therefore wish to state that it is useless applying to us during January and February for any trees except all varieties of the Citrus Family. These trees do excellently well planted in the summer, when they have a clearly defined dormant period, and we are always prepared to book Citrus orders for delivery any time.

**POSSIBILITY OF NECESSITY TO CANCEL ORDERS
ALREADY BOOKED.**—A heavy percentage of our business is now done by advance booking up of trees; and we wish to encourage this method of business, as it is in the interests of both our clients and ourselves.

But we wish to distinctly point out to customers that we cannot have orders, which have been received and booked by us several months in advance, thrown in on us in August. Our selling season is practically ended at that date, and it is then impossible to sell the cancelled stuff.

In future, therefore, provided an order is not cancelled by the 30th June, we shall take it that our client intends planting. Many of our clients postpone, from time to time, the despatch of their trees owing to the non-arrival of the always hoped-for rain. We would again point out that, provided the trees at planting are treated as fully described elsewhere in this catalogue, it is distinctly an advantage not to wait for rain; as, should it come a few weeks later, the tree will already have begun to form the roots, and the rain will materially assist.

DECIDUOUS TREES.

HOW TO HANDLE DECIDUOUS TREES AFTER ARRIVAL.

—ON RECEIPT OF CONSIGNMENT.—As soon as possible after the trees have arrived each bale should be carefully opened up. After the canvas covering has been removed, care must be taken to cut first the outside strings which bind the entire contents together. There are usually several bundles of different varieties



Photo by Gribble & Son]

Entrance to Nurseries.

[Paarl.]



Photo by Gribble & Son]

General Office and Staff.

[Paarl.]



Photo by Grubb & Son]

Pickstone's Washington Navels.

[Pearl.

of trees in each bale, and if the strings round these are cut first by mistake these different sorts may get mixed.

The bale is then unpacked, and when the trees are in good condition, as is usually the case, they should be planted out immediately. If it is not convenient to do so the trees must be heeled in in a shady spot, that is, placed slanting ways in a trench with the roots well covered with fine moist soil. In this way, provided the soil is kept moist, they will keep in good condition for some weeks; but they must be planted out before the first sign of growth shows.

If the trees happen to arrive a little dry, they should first of all be entirely immersed from twelve to twenty-four hours in cold water, preferably running water. If they arrive very dry and shrivelled, through delay en route, they can be immersed for a period of forty-eight hours in cold water. It will seldom be found that the trees are altogether past recovery. If the trees arrive very dry, another good plan is to bury them completely for two to three days in moist soil.

TREES MAY BE KEPT WITHOUT UNPACKING.—In cases where a cellar, barn or other cool place is handy, the bale may be kept there for a week or so with perfect safety without being unpacked. It is only necessary to immerse the end of the bale where the roots are, a few minutes in water. The only objection to this method is that without opening the bale it is not always easy to know what condition the trees are in, so that unless one is first assured of their being in good condition, it is better to open up and heel in, or treat as above described.

CUTTING DOWN OF DECIDUOUS TREES AT PLANTING.—Always cut about knee height or thereabouts; should the trees have good healthy, strong, lateral branches about this height, shorten these into about six inches from the main stem; this particularly applies to two-year-old trees. Walnuts do not need cutting down at planting.

DESCRIPTIVE LIST OF DECIDUOUS FRUIT TREES.

NOTE.—The first month named after the termination of the description is the month when the variety ripens. The last-named signifies until when it should be marketable, e.g., Cleopatra ripens March, keeps till May when properly stored.

The varieties marked with an asterisk () are those that our firm have introduced to South Africa, and a reference to these will show to what a large extent the present position of the fruit trade within the Union—and also outside—is due to the enterprise of our firm during the 24 years of its existence.*

APPLES.

ASHMEAD'S KERNEL.—See Prynnsberg Beauty

***BALLARAT SEEDLING.**—A first-class culinary apple; large, green and yellow, with red cheek; late. Approved of in this country. Can be recommended.

***BEN DAVIS.**—A popular and widely-distributed apple in America, especially through South and South-west. Tree hardy, free grower, abundant bearer, and late bloomer; fruit often of not the best quality, but excellent keeper, medium to large, skin yellowish, splashed red, flesh white, tender, moderately juicy. April to August, when stored.

BLENHEIM ORANGE PIPPIN.—An old and well-known apple of English origin, suited for cooking and dessert. Large, yellowish, becoming deep orange, stained and streaked with red on the sunny side. Good shipper. February and later. Tree a vigorous grower. Late bloomer. Does well in South Africa.

BOKVELD.—A Colonial apple, well known in the Western Province. Medium season. Fair to good quality.

CELLINI.—An early cooking apple of English origin. Medium to large size, deep yellow, streaked or mottled red; flesh white, juicy, tender, fresh and pleasant. Free grower and excellent bearer. A fair success East and West. January and February.

CHRISTMAS.—An old Colonial variety, sometimes called New Year apple; is highly recommended, a good bearer and free grower, fruit of medium size and high colour. Known as the Lady apple in Natal. January.

CLEOPATRA.—An Australian variety that has been thoroughly tested here. Of good medium size, green, bright yellow when ripe, and an excellent shipping apple, tree a fair grower, and very heavy and very regular cropper. Late dessert. March—May. When stored. Subject to bitter pit and mildew.

***CLIFF'S SEEDLING.**—Fruit large, "Pearmain" shaped, and reported highly coloured. Flesh yellow, crisp, juicy, and of exquisite flavour; a late keeper and valuable market variety. Tree remarkable for its upright and vigorous growth; perfectly blight-proof; late. Very little South African data.

COLVILLE.—This variety has been grown for many years with success in the Constantia district. Tree strong grower, healthy, and bears well.

***COMMERCE.**—An American variety of great merit, newly introduced by us. A free grower and a heavy bearer. Fruit nearly round, and of large size. Keeps well. April and later. Behaviour here good.

COX ORANGE PIPPIN.—An English dessert apple of the first quality; medium size; yellowish, shaded and streaked with red, entirely the latter colour on the side exposed to the sun. A free bearer. March and later stored. Not very satisfactory here.

DELICIOUS.—A most beautiful apple from Iowa. Tree a strong grower, hardy and most prolific bearer; fine colour, like "Jonathan," and most exquisite flavour. One of the best keeping apples. Not properly tested here.

***DUCHESS OF OLDENBURG.**—Fruit large, round, skin smooth; greenish yellow on the shaded side, streaked with fine bright red side next sun; covered all over with russety dots. Flesh yellowish white; firm, crisp, and very juicy; pleasant, brisk and refreshing flavour. Excellent early culinary or dessert apple of first quality. Ripens early summer, and continues in use a month or more. Tree dwarfish, but hardy, and an excellent bearer. Early bloomer.

***EARLY HARVEST.**—One of the few American apples highly approved of in England. Medium to large, pale yellow. Tree moderate grower, free early bearer. Flesh, white tender, juicy, crisp. An early dessert apple of great excellence. December.

EMPEROR ALEXANDER.—A cooking apple, showy, and of the largest size. Skin greenish yellow, streaked with red on

the sunny side. Flesh white, juicy, tender and slightly aromatic. Strong and vigorous grower and good bearer. February—March.

ESOPUS SPITZENBERG.—Rather large, slightly conical. Colour a rich red, obscurely striped, flesh yellow, crisp, acid, rich flavour, bears well here. Tree upright grower, willowy wood, tree in appearance like the Jonathan. Keeps very late into winter, when stored.

GRAVENSTEIN.—A German apple, in very good repute all over the world. Tree very vigorous and productive and an early bearer. Fruit large, greenish yellow, at first becoming bright yellow, and beautifully streaked and pencilled with red and orange. Flesh tender and crisp, somewhat aromatic. Valuable for market and cooking, succeeding admirably wherever grown. One of the best autumnal fruits. February—March.

HUGO.—An old Colonial variety, well-known in the Western Province. Quality we consider quite secondary. Prolific bearer, and high colour. April and later.

***JONATHAN.**—A beautiful American dessert apple, suited to most soils, shoots slender, but a vigorous upright grower, and very productive. Fruit of medium size, skin yellow, with lively red stripes, deepening to brilliant red next the sun. Flesh white, sometimes pinkish, tender and juicy, with a mild vinous flavour. More extensively planted than any other in Australia. Subject to mildew on High Veld. February to April. Can be stored.

KING OF PIPPINS.—A well-known early English dessert apple, highly approved of in Australia, though not generally successfully grown in the United States. Skin greenish-yellow mottled red and slightly russety. Flesh yellowish, firm, juicy, rich vinous flavour; an excellent shipper. February and March. Can be stored.

***KING OF TOMPKINS COUNTY.**—Large, handsome, American apple, popular in the export trade, increased planting being recommended here. Large, striped yellow and red, tree vigorous and productive. Flesh yellowish, rather coarse, juicy, with a decided aromatic, vinous flavour. April to August. Stores well.

KOO APPLE.—A Colonial variety much valued in parts of the Western Province. Medium size; shape oval; colour when ripe, yellow. If picked about end of March will keep till

August or later. (We are indebted for the description of this apple to Mr S. G. Burger, of De Doorns.)

LATE BLOOMER.—This is the same variety as the Wemmers Hoek.

***LONDON PIPPIN.**—Large, roundish, slightly flattened; colour, greenish yellow, stalk short, flavour sub-acid. Tree a fair grower. One of the favourite Australian export apples. April to September. Stores well.

***LORD WOLSELEY.**—A New Zealand apple of the greatest excellence, suited for either dessert or cooking. Of medium size, a moderate grower, a good cropper, foliage thick and dense, nearly blight-proof. April to August. Stores well. Subject to water core.

***MISSOURI PIPPIN.**—Large; pale whitish yellow, splashed with light and dark red; flesh whitish; crisp, moderately juicy; sub-acid. Can be recommended with confidence. March—September. Stores well. Highly recommended.

***MONMOUTH PIPPIN, or RED CHEEK PIPPIN.**—Of American origin, size large, pale yellow, blushed red, with russety spots. Free grower, and productive; good shipper and late keeper. Flesh juicy, fine, brisk, sub-acid, aromatic. April—August. Late bloomer.

***MUNRO'S FAVOURITE.**—See description under the heading "Ohenimuri." They are one and the same apple. This is one of the most popular apples exported from Australia to England, and always brings good prices.

***NICKAJACK.**—Fruit large, round, colour yellowish, striped and splashed with two shades red. Flesh yellowish, compact, moderately tender and juicy. A well-known American variety, ripening late and keeping well. The value of this variety is chiefly on account of its extreme hardiness and productiveness. Does well along the Eastern Coast Districts. April and later. Stores well.

NORTHERN SPY.—A very popular American dessert apple of the best quality. Tree a vigorous grower and does not come early into bearing. Fruit large, greenish yellow, with a yellow red cheek next the sun. Flesh white, tender, juicy, brisk, sub-acid; a four months' keeper. Subject to bitter pit. Blight-proof. May—September. Late bloomer. Stores well.

***OHENIMURI.**—A New Zealand dessert apple of great excellence, fetching the highest price in Covent Garden. A mode-

rate grower, and early bearer. Flattened, skin bright yellow, slightly clouded brown; an excellent keeper. Maintains its reputation here. Same as "Munro's Favourite," the great Australian shipping apple. One of the best all round varieties here. April—September. Stores well.

***POMME DE NEIGE.**—Flesh white, a fine market apple; medium, Said to be free from bitter pit. A free grower and hardy. March and later. Stores well.

PRINCE BISMARCK.—Fruit large and handsome; skin yellow, sprinkled all over with broken streaks of red, especially on the sunny side. This is a New Zealand variety. Flesh white, tender, juicy, slightly acid. March—July. Stores well.

PRYNNSBERG BEAUTY.—An old favourite of Mr. Charles Newberry, of Prynnsberg, Cloolan; very suited to the Conquered Territory; green, turning yellowish, and suitable size for export. A very late keeper, yellow flesh, aromatic flavour, and has proved absolutely blight-proof. Highly recommended.

***RED ASTRACHAN.**—Of Russian origin, the standard early apple in California. Vigorous grower; free bearer. Of good size, almost entirely red, a little yellowish on the shady side. Highly esteemed in its season. Must not be allowed to hang after ripening. Sells on its appearance. January to February. Early bloomer. Will not store.

RED CAULDWELL.—For description see "Versfeld." They are one and the same apple.

REINETTE DU CANADA.—A large and handsome culinary and dessert apple. Skin greenish yellow, brownish on sunny side, covered with numerous brown russety dots. Highly esteemed in Australia. Approved throughout Africa. March to May. Stores well.

***RHODE ISLAND GREENING.**—A large and widely popular American dessert apple. Tree strong, vigorous, spreading grower; very productive. Fruit large, roundish, dark green, becoming yellow when ripe. Flesh yellow, fine grained, and containing a lot of aromatic juice. March—June. Stored.

RIBSTON PIPPIN.—Unsatisfactory here, but well known the world over; favourite Tasmanian variety, and good for the export trade. Needs a dry and well-drained soil. April till September. Stored.

ROKEWOOD.—An Australian variety, highly coloured; beautiful appearance. One of the best late keepers, and the leading variety exported from Australia to South Africa. March and later.

***ROME BEAUTY.**—An American winter dessert apple of great excellence, held in high esteem throughout the United States, and also in Australia, where it is particularly favoured by exporters. A moderate grower and late bloomer. Fruit large, roundish, yellow, shaded and striped with bright red, and sprinkled with light dots. Flesh yellow, tender, juicy and sub-acid. April—August. Bears very young. Very late bloomer. Stores well. Cannot be too highly recommended, especially for High Veld.

SCARLET NONPAREIL.—An excellent English dessert apple, favourably known in Australia. Tree hardy, good grower, but slender, bears well. Fruit medium, round, regularly formed. Skin yellow streaked, red on the sunny side. Flesh yellowish white, firm, juicy, sweet. March—July. Stores well. Unsatisfactory here.

***SHARP'S EARLY.**—Perfectly blight-proof as far as tested. Fruit of good size and most handsome appearance, yellow ground, covered with red and crimson stripes; tree a regular and heavy cropper; ripens early in January; one of the best early dessert apples. Highly recommended here.

***STONE PIPPIN.**—An English apple, highly esteemed by Australian growers. Tree vigorous, hardy, foliage dense; an abundant bearer. Fruit medium, oblong, green, becoming yellow. Flesh very firm, almost sweet. April to September. Stores well.

STURMER PIPPIN.—A dessert apple well-known in the Australian export trade. Of English origin. Yellow with bronze crimson cheek; of medium size; excellent bearer. May—August. Stores well. Subject to bitter pit and black spot.

***SYKE HOUSE RUSSET.**—Fruit small and almost round; skin yellow, entirely covered with brown russet. Flesh yellow, firm, crisp, juicy, rich and sugary. Very excellent dessert apple that maintains its reputation here. March—September. Stores well.

VERSFIELD'S.—A popular late apple throughout the country, always fetching good prices in the market. A free grower and early bearer, and enjoys considerable immunity from *Aphis Blight*. Fruit large, greenish yellow, freely streaked

with red, almost entirely red on the sunny side. (The correct name is "Red Cauldwell.") April—September. Stores well. Highly recommended.

***WATSONVILLE SPECIAL.**—A selected variety, brought by Mr. H. E. V. Pickstone when in California some years ago. One of the most popular varieties in the celebrated Pajaro Valley. Late. Stores well.

WEMMERS HOEK.—A very old Colonial variety, too well-known to need description, hardy and prolific, but we consider of secondary quality; pays well, however. Known throughout Eastern Province as Late Bloomer. March—September. Stores very well.

***WHITE WINTER PEARMINE.**—Probably of American origin; highly esteemed in the Western States. Tree strong and healthy grower, and regular bearer. Fruit medium to large. Skin pale yellow, with a warm cheek, sprinkled with minute russety dots. Flesh yellowish, crisp, juicy, pleasant, sub-acid; nearly blight-proof, very popular in Eastern Province. June—August. Stores well. Recommended here.

***WILLIAM ANDERSON.**—A very pretty dessert apple, above medium size, good flavour and keeps well; tree blight-proof; late.

***WILLIAM'S FAVOURITE.**—A very hardy dessert fruit, introduced by us from Australia. Is of medium size, and ripens early. January. Can be highly recommended.

***WINE SAP.**—Medium size, roundish, flesh firm, crisp, juicy. Tree a healthy grower and free bearer. A successful variety here, but not of the largest size. March and later. Stores well.

***YELLOW NEWTON PIPPIN.**—One of the most valuable of American apples, largely figuring in the export trade from that country. Large, roundish, more or less flattened, with brownish-red cheek. Flesh firm, rich, juicy, with very rich, high flavour. Hardy and an excellent bearer. A good keeper, does not maintain its reputation here. April—September. Stores well.

***YORK IMPERIAL.**—Medium size, oblong, oblique, smooth, colour yellow, shades red, indistinct red stripes, flesh yellow, rich, sub-acid, very good. A beautiful apple here, but small. April—September. Stores very well.

PEARS.

We are much indebted to the kindness of the Cape Orchard Co., Ltd. for the accurate data *re* keeping qualities in storage.

BON CHRETIEN.—(Williams.) The Bartlett of the United States. A prime favourite all the world over, unsurpassed in its season as a market fruit, and has no competitor for drying and canning purposes. It is worthy of note that 30,000 cases of this one variety are sold in Covent Garden daily during its French season. A free bearer, and upright grower. Ripens up well after picking, and will be mealy and unpalatable if allowed to ripen on the tree. Fruit large pyriform, pale green, changing to yellow when ripe, and reddish on sunny side. Flesh white, fine-grained, buttery, melting, delicious flavour and powerful musky aroma. Bears young. January—March. Will not safely store more than two months.

BEURRE BOSC.—Large, true pyriform, of good quality. Skin yellow, largely splashed with russet. Flesh white, fine, melting, buttery. A free grower and prolific bearer; a dessert pear of good quality that does well in this country. February and later. Excellent keeper. Will store till August.

BEURRE CLAIRGEAU.—A handsome showy pear of the largest size. Skin fine lemon colour, tinged red on the sunny side. Flesh white, juicy, sweet, slightly coarse. A free grower, and very productive. Is not much favoured in Covent Garden. February and later. Fair keeper. Will store till June.

BEURRE DIEL or MAGNIFIQUE.—A large and handsome dessert pear, of Belgian origin. Skin yellow, deepening marble, with russety dots. Flesh yellowish white, sweet and delicious. Tree a particularly free grower. This pear is grown in several districts in the Cape Province, as Beurre Magnifique, and is highly esteemed. Good shipper. March and later. Excellent keeper. Will store till July.

***BEURRE HARDY.**—Fruit large, handsome, strikingly even in contour. Skin shiny yellow, covered with russety spots. Flesh white, sweet, melting, and perfumed. It is worthy of note that this pear is very acceptable in Covent Garden. One of the very best Pears and grows well in the Cape Province. February and later. Good keeper. Will store till June.

BEURRE SUPERFINE.—Fruit above medium height, three inches wide and a little more high, obovate, somewhat uneven on the surface. Skin greenish yellow, considerably covered with patches of russet, stalk over an inch long. Flesh yellowish white, fine grained, buttery and melting. A very fine pear indeed. Bears and grows well here. March and later. Will not store more than six weeks.

***CLAPP'S FAVOURITE.**—A large early pear, resembling Williams Bon Chretien, but ripens about one week earlier than it. Skin pale yellow, with brown dots. Flesh melting, buttery, juicy, with sweet, vinous flavour. Tree very hardy and productive, and likely to succeed where others fail. Very satisfactory in Western Province, but will not store satisfactorily. Early January.

DECEMBER.—The well-known Cape Christmas Pear. Tree a vigorous and upright grower, an excellent and regular bearer. Fruit small and of good flavour. The earliest known pear, ripe during December. Adapted to the whole of South Africa.

DOYENNE DU COMICE.—Large, varying, roundish, pyriform. Skin yellow, covered with specks and patches of brown russet particularly round the stalk. Flesh very tender, buttery, melting juicy and rich. A most delicious dessert pear. Tree a healthy grower, but shy bearer in Africa. Stalk half an inch to one inch long. Good for export. Fetches each year the highest prices of all pears in all markets. March and later. Good keeper. Will store till June—July.

DUCHESSE D'ANGOULEME.—Fruit large to very large, roundish, obovate, very uneven in outline. Skin pale yellow, covered with veins of pale brown russet; sometimes takes a brownish tint. Stalk an inch long and stout. Flesh white, buttery, melting, delicious. A dessert pear of great excellence, and an excellent shipper. Tree of slender growth. April. Good keeper. Will store June—July.

***EASTER BEURRE.**—A standard late variety, all over the world, of large size and excellent quality. Fruit roundish, flat, sometimes almost square. Skin yellowish green, freely sprinkled with russety dots. Flesh white, firm, grained, very buttery melting, delicious. Tree a moderate grower, free bearer. Ripens too late for export. Will keep several months. May and later. Excellent keeper. Will store till September.

***FERTILITY.**—A most prolific variety, raised by Mr. Rivers; of medium size. Flesh half melting, juicy and sweet, with perfumed flavour. Stalk three-quarters of an inch to one inch, long and stout. A most profitable orchard variety, and tremendous grower. One of the most successful in New Zealand. Maintains its reputation here. Bears young. March and later. Will not store satisfactorily.

***FORELLE or TROUT PEAR.**—The most beautiful of all pears, of secondary quality, only in Europe, but in California it improves in quality, and takes brilliant colour, which makes it unsurpassed as a showy table fruit. Ships well. Must become popular in Covent Garden. Fruit medium size, oblong, obovate. Skin yellow, brilliant red on sunny side, covered with reddish dots resembling trout. Flesh white, delicate, melting, sugary and aromatic flavour. Hardy and vigorous grower. Bears young. April—July. Excellent keeper. Will store till August.

GANSEL'S BERGAMOTTE.—Fruit medium-sized, roundish, inclined obovate. Skin greenish-yellow on shaded side and reddish-brown next sun, the whole strewed with russety dots and specks. Flesh white, buttery, melting, but gritty; very juicy, rich, sugary, and aromatic, and strong musky flavour. A dessert pear of highest merit; mid-autumn. Shy bearer; needs fertilising from adjacent sorts. Will store safely two months.

GLOU MORCEAU.—A well-known and popular late shipping pear. Fruit above medium size. Skin pale greenish-yellow; covered with greenish-grey dots. Flesh white, tender, sugary and buttery; a very good dessert pear, well-known in the S.A. Export trade, and maintains its reputation here. March—July. Excellent keeper. Will store till August.

JARGONELLE.—Fruit medium and pyriform; skin smooth and greenish-yellow, tinged dark brownish-red next sun. Flesh yellowish-white, tender, melting, and juicy; rich vinous flavour and slight musky aroma. Tree healthy and vigorous. A well-known early dessert pear; ripens shortly after December pear, and should be picked when green and ripen off the tree. Will not store.

JOSEPHINE DE MALINES.—A late dessert pear of first-rate quality and of good size. Skin yellowish-green, reddish on sunny side. Flesh yellow, with a tinge of red, melting, sugary, juicy, with a fine aroma; straggling in its growth, hardy and a good bearer. Very satisfactory in Africa.

April—September. Excellent keeper. Can be stored till August and September.

***KEIFFER HYBRID.**—A very hardy American pear, most extensively grown, particularly through the Southern States, where thousands of acres of the variety alone are planted out; also being largely grown in Australia, where it succeeds equally well. A vigorous grower, and free from blight. Fruit of large size, rich colour, and good quality; excellent for canning. Should be house-ripened. Fruit is of good quality throughout Africa. Can be recommended as a money getter. March and later. Excellent keeper. Will store till September.

***LE CONTE.**—Large, pyriform. Skin yellow. Of medium quality only, but tree remarkably vigorous, healthy and prolific. Medium early. Will not store satisfactorily.

LOUISE BONNE DE JERSEY.—A very excellent pear, free grower and abundant bearer, carrying the fruit in clusters. Fruit medium large, pyriform; skin yellow on the shady side, reddish next the sun. Flesh white, juicy and melting, with perfumed flavour. Good shipper. Well suited throughout Africa. March and later. Fair keeper up to two months.

MAGNATE.—Fruit large, even and symmetrical in outline. Skin covered with dark-brown russet freckles. Flesh yellow, tender, melting, rather gritty at core; richly flavoured, somewhat of a rose-water perfume. Strong and free grower. Autumn.

SWEET SAFRAAN.—An old Dutch variety; too well known to need description. Sold out 1917 season.

***TONGRES.**—An excellent variety, and a heavy and early bearer. Tree takes a natural shape; is an upright grower. Fruit a true pyriform, highly coloured on the sun side. Is not a good keeper. March and later.

***VICAR OF WINKFIELD.**—Fruit very large, pyriform; skin smooth, greenish-yellow, with a faint tinge of red on the side next to the sun. Flesh white, fine grained, half melting, juicy, sweet. A large pear suitable for stewing; much inferior to Keiffer; does well in Australia, also here. April and later. Good keeper; may be stored till July and August.

WINTER NELIS.—A well-known standard late variety. Tree characterised by a particularly slender growth. Fruit

medium size, rounded; skin yellowish, covered with very numerous russety spots and patches of brown russet. Stalks from 1 inch to $1\frac{1}{2}$ inches long, curved. Flesh yellowish, finely grained, buttery, vinous, with a fine aroma. A splendid late variety which suits the frostless districts of the country admirably, the fruit attaining a size not dreamt of in Europe. Splendid for shipping, and popular in London. March—August. Excellent keeper. Will store till August.

WINTER SAFRAAN.—This old and well-known variety we have taken into stock, as we find many farmers scattered through South Africa wish to plant it. We recommend it as a Home Orchard general utility pear. Stores several months.

PEACHES.

FREESTONES.

ANGEL.—A Chinese variety, large, roundish, slightly pointed, skin yellow, highly washed with red, flesh white, melting, juicy. Blooms later than Peento.

***BRIGG'S RED MAY.**—A Californian Early. Size medium to large. White skin with red cheek. Flesh, greenish-white, melting, juicy, firm and delicious. Good shipper. Stone partially free. A standard early.

BROOK.—This is a chance seedling raised by Mr. A. T. Brook on his orchard at Silverton, near Pretoria. It closely resembles "Foster," and may have originated from a pit of that variety. It differs, however, very materially in its bearing qualities, for whereas "Foster" steadily refuses to bear in warmer districts, the "Brook" is in these very localities a truly marvellous cropper. It has a yellow skin, almost entirely covered with a deep red blush, a deep suture extending nearly to the point, with rich, full-flavoured yellow flesh, turning to red round the pit, which is free. It has been tested and propagated by the Horticultural Experimental Station at Potchefstroom, and is recommended for planting in the middle or bushveld districts.

CONSTANTIA.—A selected old Cape variety of first-rate quality, appearance and flavour, specially suited to the export trade. A mid-season variety, ripe in January.

CRIMSON GALANDE.—Fruit large, roundish. Skin almost entirely covered with dark crimson, nearly black. Flesh very tender and melting, very much stained with red at the stone, from which it separates freely. A very excellent peach. Tree a free grower. Mid-season.

DAGMAR.—Large; melting and rich. Skin very downy and of a deep crimson, very handsome. This is a seedling from the Early Albert peach; glands kidney-shaped, flowers small.

DR. HOGG.—A delicious and well-known English peach of great merit. Medium to large size; skin thin but tough; yellow, dotted with crimson, and red cheek. Flesh yellowish-white, melting, rich and delicious, red at the stone, from which it parts freely. A good shipper. Maintains its reputation here. Mid-season.

***DUCHESS OF CORNWALL.**—An early peach, ripening with Alexander. Medium size. Grows well and bears freely. A new variety here. A high-class peach of most excellent flavour.

***DUKE OF YORK.**—A good highly-coloured freestone peach of fair size and excellent flavour. Ripens just after Alexander. Bears well. Highly recommended here.

EARLY ALEXANDER.—Fruit greenish-white nearly covered with red. Flesh firm, juicy, partially freestone. Ships well. Maintains its reputation here. A standard early. Does splendidly generally throughout South Africa, except in the low veld; needs a sheltered spot.

***EARLY CRAWFORD.**—A peach of New Jersey origin, planted more than any other variety in California. Very large. Skin yellow with red cheek. Flesh yellow, rich and excellent. A perfect freestone. Healthy and productive. Well adapted for market and for canning. Splendid for drying. Uncertain bearer in Africa. Mid-season.

EARLY RIVERS.—An early English peach, highly esteemed in Australia, and maintains its reputation here. Fruit large, roundish; skin pale yellow, blush on the sunny side. Flesh pale to the stone, tender, juicy, rich. Too tender for export. Heavy bearer.

***ELBERTA.**—Fruit large, yellow, with red cheek, freestone. Flesh yellowish, highly flavoured and juicy. A mid-season variety, free growing and healthy; of very great repute in America. Has done well here when tested; one of our best.

Mid-season. Seems a general favourite throughout this country. Bears well, and suited for canning, drying, and export.

FLORIDA CRAWFORD.—Mid-season variety. Large roundish oblong; light yellow with red cheek. Flesh yellow, melting, juicy, with rich flavour. Quality excellent. This is a newly-imported variety, which is reported to succeed excellently in the Transvaal, and is one of the few varieties which succeed on the Low Veld.

***FOSTER.**—An Eastern American peach, widely grown and much esteemed in California. Very large. Colour deep orange red on sunny side. Flesh yellow, very rich and juicy. Ripens a week before Early Crawford. Very good for drying, and good for market. Uncertain bearer here. Mid-season.

GLADSTONE.—Fruit very large, roundish, and depressed at crown. Skin pale, mottled red cheek. Flesh white, very tender, melting, juicy, and freely separating from the stone. Very free grower. A very late peach of Mr. Rivers' raising. One of the best late peaches here.

GROSSE MIGNONNE.—Fruit large, round, well-shaped, white-fleshed, with a beautiful colour on the sun side. Can be recommended with confidence for local markets or export. Mid-season.

***HIGH'S EARLY CANADA.**—An early American freestone. Skin whitish-yellow, marbled with red on the sunny side. Flesh white, juicy, melting; medium size. Ripens in December.

IMPROVED WALDO.—Said to be an improvement on the Waldo described elsewhere.

***LATE CRAWFORD.**—Of similar origin to Early Crawford. Very large, roundish, yellow, with dark red cheek. Flesh yellow; flavour rich and excellent. Markets and drying.

LE VAINQUEUR.—Large creamy white, with blush cheek; flesh tender, juicy, melting, and delicious; free stone; ripens before the Early Alexander.

MAMIE ROSS.—Tree vigorous upright grower, regular bearer, flesh white, semi-cling, of extra large size and good flavour, ripens first week in January. Unsuitable for export, but valuable for local markets.

***MARY'S CHOICE.**—An American variety, popular in California, large, yellow with a red cheek resembling an Early Crawford, but ripening a little later. Suited for markets and canning, and excellent for drying. Is doing very well where fruited here. Mid-season.

MOUNTAIN ROSE.—A second early peach, of good flavour and quality and fair colour. Ripens after Early Alexander, and is very desirable as a follower of the very earlies. Has proved satisfactory in Africa.

***MUIR.**—A Californian seedling of great excellence, suited for shipping, canning and drying, but excelling in the latter field, where it yields a heavier percentage of dried fruit to fresh of any known variety, viz.: 1 lb. of dried fruit to less than 5 lbs. of fresh. If grown on rich soil the fruit will be large to very large. Flesh yellow, very dense and sweet. A free bearer. A perfect freestone. Does well in the Western Province and on the High Veld. Mid-season.

NECTARINE PEACH.—An English variety which has proved quite satisfactory in South Africa. Fruit of good size and high colour; skin very smooth, exactly resembling a nectarine; flesh richly-flavoured, juicy, red near the stone. Ripens during February.

***NEWHALL.**—A Californian, very large; skin yellow, deep red cheek. Flesh yellow, juicy, rich vinous flavour. Ripens one week ahead of Late Crawford. Tree healthy and vigorous. Maintains its reputation here. Latish.

PALLAS.—A Chinese variety. Good size, nearly round; deep red, dotted with salmon, and tipped with light yellow at the base and apex; flesh white, fine-grained, melting, with a rich vinous aroma; quality excellent; free. Early.

PEENTO.—Flat peach of China. The pioneer of this strain of peach, and delicious in quality if well grown. Ripens very early. Succeeds well in the Transvaal.

***PEREGRINE.**—Raised by Mr. Rivers. A distinct mid-season variety, distinguished by its good constitution and productiveness. The fruits are large and handsome, with a brilliant crimson skin; the flesh rich, highly flavoured, and parting readily from the stone. Good for export.

PUCELLE DE MALINES.—A very fine late Peach, bringing high prices on the London market. Fruit fairly large and round. Skin well coloured on the sun side. Flesh melting, luscious and delicious perfume. Free stone.



Photo by Gribble & Son]

Section of Citrus Seed Beds.

[Paarl:



Photo by Gribble & Son]

Block of 100,000 Peaches, buds just starting out.

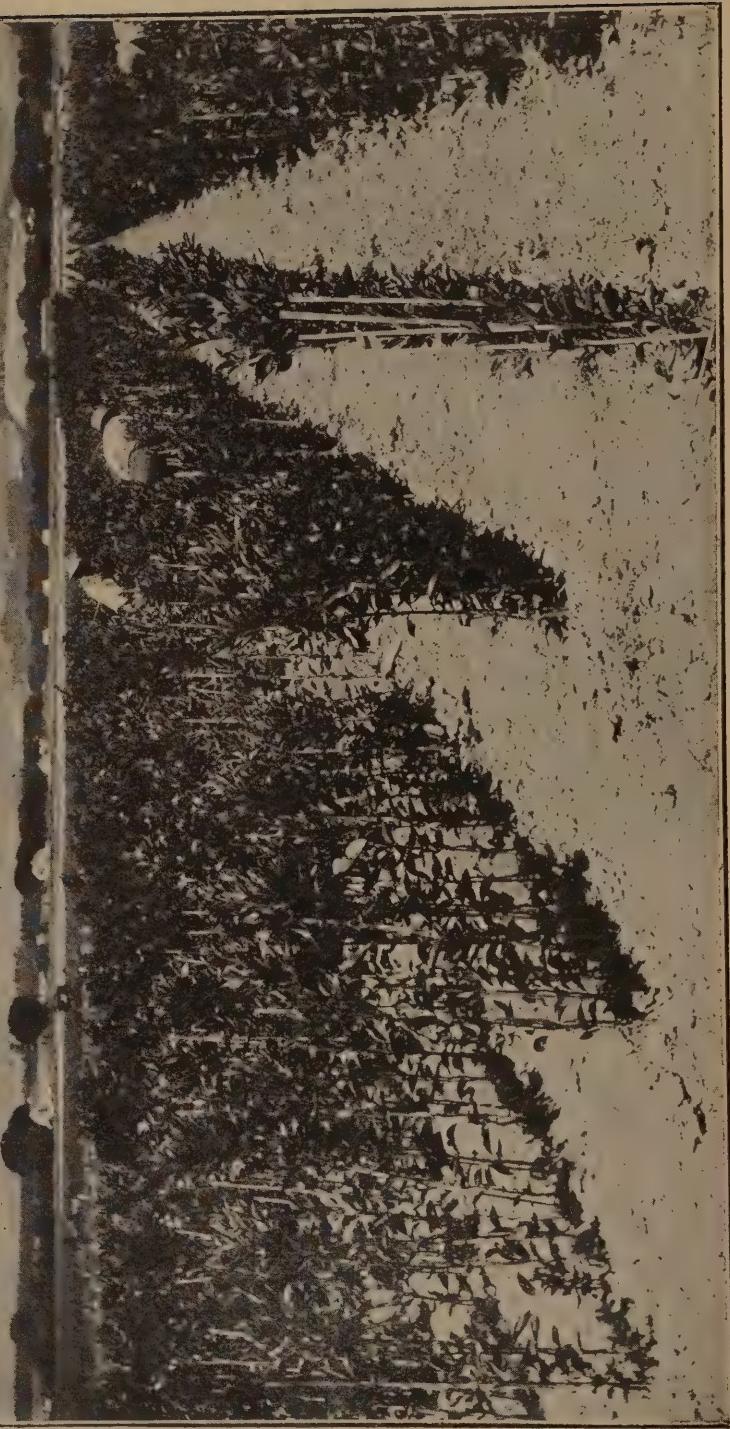
[Paarl.

Photo by Gribble & Son]

Section of Citrus Blocks.

We hold over 100,000 budded Citrus Trees and 200,000 Seedling Stocks.

[Paarl.



ROYAL GEORGE.—An old English variety of the greatest excellence. Fruit large, round. Skin very pale, speckled with red in the shade, marbled with deeper red on the sunny side. Flesh pale yellowish-white, red at the stone, very juicy, rich, delicious, and highly flavoured. Maintains its reputation in this country. Mid-season.

***SALWAY.**—An English variety, highly esteemed in California, where it is the standard late peach. Fruit large, roundish; skin yellow, rich crimson cheek. Flesh deep yellow, red at the stone. Adapted for both market and drying. Very late. Good where the country is free from maggots.

SEA EAGLE.—A large greeny-white peach, taking fair colour, and distinctly pointed in shape; medium late; of good quality, so far as I have tested the fruit here. Late.

SCHOONGEZICHT.—Mr. Merriman's selected export peach, an old Cape melting variety of delicious flavour, good size and high colour; a good and regular bearer, and very much esteemed in London.

***THOMAS RIVERS.**—A large round peach, with a bright red cheek, ripening in the end of March. Flesh firm, juicy, and of good flavour; a remarkably heavy fruit. Freestone.

VICTOR.—Large creamy white, with blush cheek; flesh tender, juicy, melting, and delicious; free stone; ripens before the Early Alexander.

WALDO.—An early Chinese peach, supposed to be a hybrid of Peento and Honey. Medium size, handsome and best quality, freestone. Ripens with Peento.

WATERLOO.—Fruit above medium size, roundish. Skin with bright red cheek, mottled, darker red side next sun. Flesh pale, with greenish tinge where shaded. Adhering slightly to stone. Melting, juicy, and rich flavoured; very early; ripens same time as Early Alexander.

CLINGSTONES.

***GEORGE'S LATE CLING.**—Large, white flesh, yellowish-green, with highly-coloured bright red cheek. Good for markets and heavy bearer. Maintains its reputation here. Middle March.

***LEMON CLING.**—Large, oblong, having a pronounced lemon-shaped point. Skin clear yellow. Flesh firm, yellow, and full flavoured. The best canning peach. Maintains its reputation here.

***SELLER'S GOLDEN CLING.**—Very large and handsome, yellow skin, taking red to bright red on the sunny side. Flesh yellow, firm and sweet and full flavoured. A splendid canning peach; as a market fruit will sell on its size and appearance. Late, mid-season.

WHITE PARVIE.—The well-known old Cape variety; excellent for canning.

CHINESE PEACHES.

N.B.—Intending planters of the Chinese varieties of Peaches will please note that the sap begins to rise in all these varieties very early in the spring, and there is, therefore, a risk in planting them after 30th of June. It is highly desirable, if best results are to be expected, to get them into the ground on or before that date. The Chinese varieties consist of the following sorts: Angel, Improved Waldo, Pallas, Peento and Waldo. The Florida Crawford and that excellent peach the Mamie Ross have also a Chinese strain, but these do not require extra early planting.

NECTARINES.

ALBERT.—An English variety; large size; roundish oval; skin pale cream with carmine blush. Stores well; ripens middle of February.

DE COUSA.—An American variety, of good size and high colour; medium season; bears very satisfactorily throughout the country, when planted in sheltered spots.

***EARLY RIVERS.**—A new variety, produced in England, and a great success in this country. Fruit very handsome, dark violet-red in colour, and very large in size. Ripens early January.

GOLDMINE.—A New Zealand variety. Fruit of the largest size, fine flavour, juicy, melting, perfect freestone; colour, bronzy red; ripens two weeks after Early Rivers. A success in Africa.

NEWTON.—Very large, rich flavour, fine colour. A fine exhibition variety; late.

SPENSER.—One of the largest nectarines. Fruit beautifully coloured, a deep brown red, mottled on the shady side, very heavy, round; flesh light green, red next the stone; free-stone; very rich and good; late.

STANWICK.—Fruit large, roundish, oval. Skin, lively green where shaded, purple red where exposed to sun. Flesh white, melting, rich, sugary, and most delicious. One of the most popular later varieties exported home from here.

VICTORIA.—Fruit large, roundish, oval. Skin pale green and purplish-red on the sunny side. Flesh white, melting, rich, juicy, delicious. Very excellent variety. February.

APRICOTS.

All sold out for 1917 season.

ALPHA.—This is of the earliest known sorts. Fruit medium to large, yellow, with a red cheek, flavour rich and sugary. The tree is a vigorous grower and very hardy.

***BLENHEIM.**—An English variety, in good repute wherever grown. Fruit a good size. Tree a vigorous grower, with abundant thick foliage. Is both suitable for canning or drying. Has also proved one of the best in Australia as a regular bearing variety, yielding a superior dried product. The bearing habits of this variety are fully maintained in Africa, both East and West.

EARLY CAPE.—This is propagated from selected trees of the well-known Western Province variety, and it needs no recommendation, fetching—always being amongst the first in the market—a most excellent price.

MOORPARK.—The best and largest of apricots when a crop can be secured. Unsurpassed for canning, but cannot be strongly recommended for commercial plantations, as it has been widely discarded owing to its uncertain bearing. Should be tried undoubtedly. Does very well however in the Transvaal and Natal.

OLD CAPE.—A selected strain of the best of the Wellington Varieties. Midseason. Good for all purposes. Heavy and regular cropper.

***ROYAL.**—This is a highly esteemed fruit of French origin, and is maintaining its reputation wherever grown. It is one of the most widely popular apricots in America, being a steady and abundant bearer, and healthy and vigorous grower; the fruit hanging well on the tree, foliage perhaps not so dense as the Blenheim. The fruit yields a first-class canned or dried product. This variety has thoroughly maintained its reputation here wherever planted, and is the favourite for drying.

***TILTON.**—A new variety imported by us, which has been tested and is highly approved by us. We consider it well worth planting on a commercial scale. Is apparently rather late, of good size, high colour, and excellent flavour, and has proved itself here a regular and heavy cropper. Excellent for canning and drying.

DOMESTIC PLUMS.

It may be noted that this season a few varieties of Domestic Plums have been omitted, the demand for same being so very small.

***CLYMAN.**—A standard early plum of Californian origin. Mottled reddish purple, blue bloom; freestone; flesh firm, dry and sweet. Ripens with the Cape red cherry plum. Bears heavily in some situations here.

COE'S GOLDEN DROP.—Fruit very large, being generally about two and a half inches long and two inches in diameter, oval. Flesh yellowish-red, sugary and delicious, one of the most delicious dessert plums, and a good shipper. Sold out 1917 season.

CZAR.—Fruit large, oval, roundish. Skin dull red to quite black when well ripened, covered with blue bloom. Flesh tender, sweet, juicy, separating freely from the stone. A very valuable cooking plum. Tree a free grower and abundant bearer. January—February. Sold out 1917 season.

DAMASK.—A handsome, oval, purple plum of the largest size, covered with blue bloom. Flesh yellowish, juicy, sweet, delicious. Has a great local reputation. A free grower and good bearer.

DIAMOND.—English. Branches long. Fruit of the largest size. Skin black, covered with blue bloom. Flesh deep yellow, coarse-grained. Freestone. A cooking plum of better



Photo by Gribble & Son]

[Paarl.]

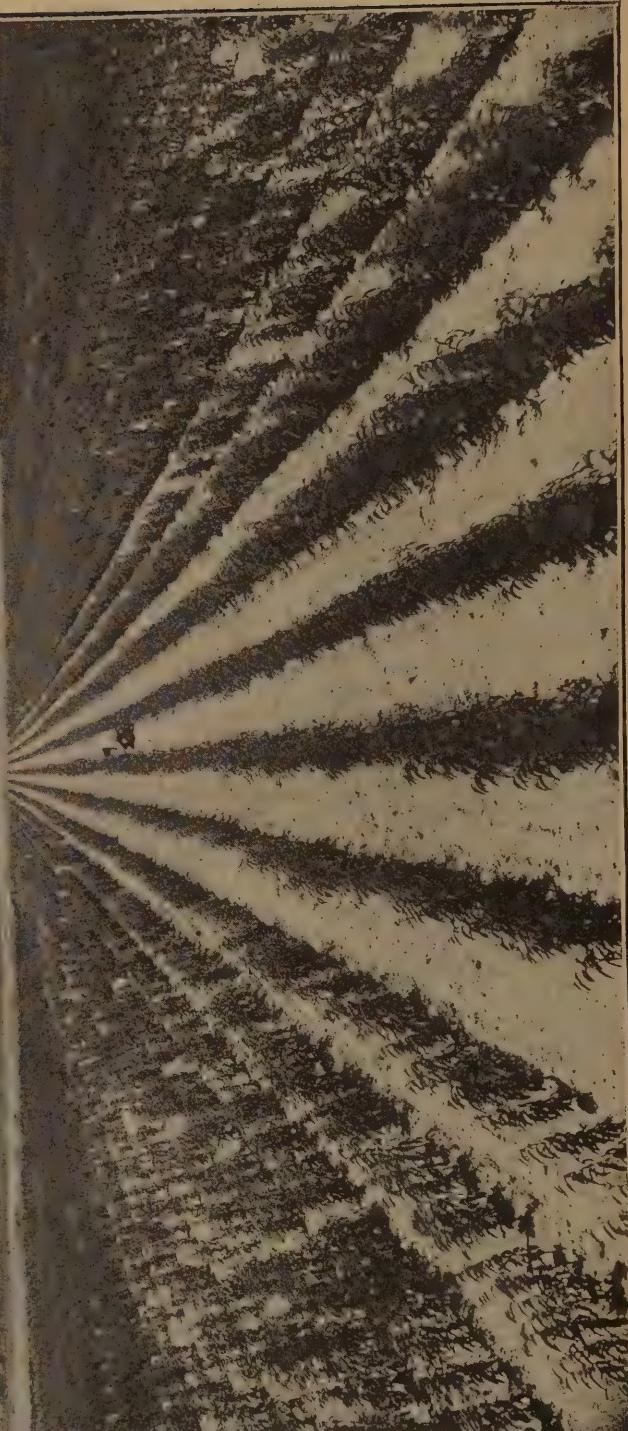
Block of two-year-old Pear Trees commencing growth.



Photo by Gribble & Son]

[Paarl.]

Japanese Plums, four weeks' growth from bud.



quality in this country than at home. A heavy cropper. February.

EARLY GOLDEN DROP.—This is the well-known and very popular early yellow cherry plum; is valuable for market on account of its earliness, and is much sought after by jam manufacturers on account of its excellent qualities for that purpose.

GREENGAGE.—It is hardly necessary to describe this plum; of good repute in every country, and fairly well suited to the several conditions of Africa, although not sufficiently so to recommend commercial planting.

HAHN'S D'ALMAGNE.—A mid-season, dark purple plum of large size, an excellent flavour, a good bearer. Tree a medium grower.

***POND'S SEEDLING.**—A very valuable English variety. Fruit very large, oval. Skin from dark red, thickly strewed with grey dots, covered with bluish bloom. Flesh yellowish, juicy, briskly flavoured, adhering to the stone. A beautiful plum. February and March. Sold out 1917 season.

PRIDE OF ENGLAND.—This is a variety of European Plums, which has been in this country for many years, and it is one of the few of this class which appear to thrive in nearly all parts. Fruit medium size to large, flesh greenish to yellow, most juicy and of excellent flavour. Skin dark purple. Freestone. Ripens at New Year, sometimes earlier. Tree free growing and good bearer.

***REID'S LATE GEM.**—A valuable new late plum from New Zealand. Very late and moderate grower. Bears heavily here and can be recommended.

RIVERS' EARLY PROLIFIC.—Purple, oval, medium size, juicy, and good freestone. A free grower, healthy, and an enormous bearer. Maintains its reputation where fruited here. Will ripen January and February. One of the best of cooking plums.

RIVERS' LATE PROLIFIC.—A seedling of Early Prolific, with the same characteristics, but ripens three weeks later.

JAPANESE AND ORIENTAL PLUMS.

The Japanese Plums have proved adaptable for all purposes for which the Domestic Plum has been used; and throughout

For Prices see page 12.

this country, with scarcely an exception, they have been found to thrive and bear with remarkable success. There are but few varieties of the Domestic Plum which, under the circumstances, are likely to prove as profitable. Orchardists are therefore advised to plant the latter with caution, and on a very limited scale, until the success of a variety has been proved.

***ABUNDANCE.**—(Yellow-fleshed Botan.) Medium in size (large when thinned), varying in shape from round to pointed. Colour rich yellow, splashed and dotted red on the sunny side; in some cases almost completely coloured red. Flesh deep yellow, juicy, sweet, and of good quality. A strong growing upright tree, and bearing, as its name implies, and highly popular in the United States. Early mid-season. One week ahead of Burbank in ripening. An early bloomer.

***APPLE.**—One of Burbank's later varieties, and one of considerable value. Has been well tested before being placed on the market. Fruit large, roundish, and of the blood class, like Satsuma. Delicious flavour. Bears transportation to England; needs very careful handling. February.

***BURBANK.**—A very excellent variety, and highly popular. Fruit nearly round, and clear cherry red, with a lilac bloom. Flesh deep yellow, very sweet, with a peculiar and most agreeable flavour. Tree vigorous and an enormous cropper. Excellent for local markets, jam-making or canning. Mid-season. Can be with confidence recommended. Doing excellently wherever tried here. A late bloomer.

***CHALCOT.**—One of Burbank's varieties. In every respect a delicious plum. Large size, roundish and flat; colour, beautiful bright crimson; should be allowed to ripen on the tree to secure best flavour. Ripens just ahead of Kelsey. Good for export.

KELSEY.—The latest of all the Japs, and the largest. Fruit heart-shaped. Colour rich yellow, nearly overspread with red, and a lovely bloom. Flesh firm, very rich, and excellent quality. Tree a free grower, but not stocky. Long willowy shoots. Excellent for market and export. Widely tested here, and has given uniform satisfaction, its fruit having been frequently exhibited in public. An early bloomer. The best Japanese plum for drying.

METHLEY.—Originated in Natal by Mr. W. L. Methley, of Balgowan; a cross between Satsuma and the Mirabella or Cherry plum. Fruit small, almost globular, rich dark red in

colour, with purple bloom, flesh dark red, melting and delicious; ripens very early, hence an excellent market variety.

***OCTOBER PURPLE.**—An Australian variety very popular there, which appears to thrive very well in this country. Ripens before the Kelsey. Yellow flesh. Fruit medium to large; skin very pretty, partially coloured red. Tree a strong healthy grower.

SANTA ROSA.—It is a fine grower, a sure regular bearer. It does not have any off years. The fruit runs remarkably fine, even in size, and astonishingly smooth and clear of any defects. It is beautiful, delicious, and a very fine carrier to South African and European markets. It will keep well in hot weather for a week after it is ripe, so there is no occasion to pick it half ripe in order to ship. Ripens in December and early January.

SATSUMA.—(Blood Plum.) Fruit of large size and nearly round. Skin dark red with a red bloom. Flesh dark, purplish-red. Stone very small and pointed. An excellent market and canning plum, and the tree a free and hardy grower and great cropper, as indeed are all the Japanese varieties.

***SHIRO SMOMO.**—Large, bright yellow, of the greengage type. Tree healthy and vigorous grower and heavy bearer. Very excellent and satisfactory in every respect. January.

***SULTAN.**—A variety imported by us. A strong free grower and regular and heavy bearer. Is of the Satsuma or Blood type. Fruit of large size and slightly elongated in shape. Must be most carefully handled.

***WICKSON.**—One of Burbank's productions, a strong, upright grower and heavy, but irregular, bearer. Ripens about mid-season. Fruit of the largest size, heart-shaped; colour a whitish-green, but colours up a rich red when ripe; can be picked green, and will take full colour. Keeps two weeks or more.

PRUNES.

***CALIFORNIA D'AGEN.**—This is the genuine French prune of commerce, which holds many thousands of people on the land in France, Bulgaria, Bosnia, Herzegovina, and also in California, where the industry of drying prunes has assumed immense proportions. Introduced by Mr. H. E. V. Pickstone

in 1892, and pushed into extensive planting in the Western Province, and some years ago was looked upon as a failure almost everywhere, and many thousands of trees were grubbed out by farmers. Now, however, a different complexion has been placed upon the future of this important commercial variety; possibly it now has become acclimatized, and we can definitely state that over a large area of this country Prunes are a great success, and are bringing in good money. Will, we think, prove a success in the North-Eastern parts of the Cape Province. Bears well along the Rand. Further description in our "Hints on Fruit Growing." Many growers in the Western Province realise from 5s. to 15s. per tree from their crop, dependent on the season.

***FELLENBERG.**—Medium size, oval, pointed at both ends, dark purple with blue bloom, juicy, sweet, and parts freely from the stone. A vigorous and spreading grower, taking naturally a good shape, an excellent and steady bearer, when tried here; suitable for drying; slightly more acid than Prune D'Agen. This is the commercial prune of Oregon. Sold out for 1917 season.

CHERRIES.

BLACK BIGGAREAU.—

***BLACK TARTARIAN.**—Fruit of the largest size, and bright purplish black, juicy and sweet. Tree a very vigorous grower and prolific bearer. The standard black cherry of California. Ships very well.

***EARLY RIVERS.**—An excellent early black cherry, nearly an inch in diameter; stem very small. An excellent bearer. Well worthy of a trial.

EMPEROR FRANCIS.—Very large and rich, dark red. One of the best late cherries.

***GIANT HEIDELFINGER.**—A large mid-season variety of the Biggareau type; of excellent quality and large size.

***GOVERNOR WOOD.**—An American variety, light red, flesh tender and good bearer. A useful second early.

KENTISH.—Fruit medium size, round, red, changing to purple if allowed to hang. The best cooking cherry. A free grower and abundant bearer.

MONSTREUSE DE MEZEL.—A very large handsome cherry of excellent quality; medium. Mid-season.

***MORELLO.**—This variety is world-wide in its reputation for the purpose of making Cherry Brandy.

***NAPOLEON BIGGAREAU.**—A splendid cherry of the largest size. Pale yellow, amber in the shade, beautifully marked with red, and a bright red cheek. Flesh firm, juicy, sweet. A free grower and abundant bearer. A splendid fruit for canning and ships well.

WALNUTS.

The English variety only carried in stock this season.
The first size will be from eighteen inches upwards, and second size trees from twelve inches to eighteen inches.

ALMONDS.

***I.X.L.**—Tree strong, upright grower, with long leaves; nuts large; hulls easily; soft shell; bears reasonably well.

***JORDAN.**—The most celebrated almond of commerce, and far and away the largest. One of our later importations, which should be tried by everybody who wants to grow Almonds. Will assist cross fertilisation with the other varieties. Sold out 1917 season.

***NONPAREIL.**—Of a weeping style of growth; smaller foliage than I.X.L.; bears well, and is a perfect soft-shell nut, though smaller than the previous variety.

***PAPER SHELL.**—Medium size, soft shell nut of good quality and bears well.

All these varieties can be recommended with confidence. They are bearing heavily and satisfactorily in some parts of South Africa, where the ordinary hard-shell almond never sets its nuts. We recommend them with confidence in South-Western Coast Districts, and strongly advise full experiments with them throughout the country. The nuts are in heavy demand, at satisfactory prices.

All varieties of almonds should be planted alternate rows of each sort, as they need thorough cross fertilisation, and if they do not get it will give a failure of crop.

QUINCES.

CAPE SELECTED.—A Colonial variety selected by ourselves.

***MEECHES' PROLIFIC.**—Large, pyriform, golden yellow; very fragrant, good flavour. Bears early. Very productive.

***ORANGE.**—Large, roundish, somewhat irregular, surface fine, golden colour, flesh firm, flavour excellent, productive.

***PORTUGAL.**—Fruit large, oblong pyriform, flesh yellow, juicy, and less harsh than several varieties. In every respect a fine fruit; not, however, a very heavy bearer.

***RAE'S MAMMOTH.**—Fruit resembles the orange, but larger; of excellent quality. Tree a strong grower.

***VAN DIEMAN.**—One of the newer varieties of quinces; above medium size; oval in shape, greenish-yellow in colour and sub-acid. Bears well.

THE LOGANBERRY.

A NEW STANDARD FRUIT.

It is stated that the Loganberry was originated by Judge Logan, of California, and is a hybrid, being the result of cross-pollinating the blackberry and raspberry. Its flavour partakes of both the blackberry and raspberry, being mild, vinous and delightful to the taste. The plant is hardy and a vigorous grower, cultivation similar to the raspberry, yielding fine, deep red berries through the height of the summer. As a yielder the Loganberry has no equal. On good soil and with ordinary cultivation an acre of the vines will give an average yield of five hundred crates weighing twenty-four lbs. each, or a total of some six tons of berries. In the manufacture of jellies and jams the Loganberry has no equal. A wine of superior quality has been made from the berries, and the juice of the berry is also used largely for flavouring beverages. Has been widely tested in different parts of Africa and with success. Vines grown here are strong and healthy and bearing profusely fruit of large size. Should in our opinion be grown on a trellis of a double wire 2 feet and 3 feet 6 inches from ground level. Further particulars will be sent on application.

We are offering a good stock of young plants this season. Price 1s. per plant. No reduction for quantities.

It must be noted that Loganberry plants as sent out are quite small and care must be taken in opening of bale or the plants may be missed and perhaps thrown aside with the packing.

FIGS.

A LARGE STOCK OF THE BEST ASSORTED COLONIAL AND FRENCH FIGS.

SEE ORDER SHEET FOR VARIETIES.

It has been found that the Fig is not so easily transplanted as other deciduous trees, and we have had complaints on this score from the Orange Free State and other Eastern parts of the country. It appears from the following paragraph, which we have extracted from an American publication, that the same trouble is experienced in America :—

“The Fig will give best results in a dry and rich location. Fertilise liberally with ashes or potash to avoid attack of the root-knot. In transplanting see that sufficient top and roots are pruned: the top should be cut almost to the ground (leave six inches or a foot of stem), and the fibrous roots shortened-in closely. Treated in this way it will invariably grow off well. In the South, and especially in Florida, it is impossible to grow Fig trees successfully in large orchards with ordinary culture. The roots are very impatient to cutting and apt to scald during hot, wet weather. Mulching with stones and heavy rubbish, or planting in close proximity to a shed or stone-heap will bring success.”

We may say from our own personal experience, we believe that if the advice given above was carried out the result would be highly satisfactory, though we do not go so far as to recommend it for parts of the country where the Fig is thoroughly at home. This system is simply to treat the Fig at transplanting just as is almost invariably done with the vine.

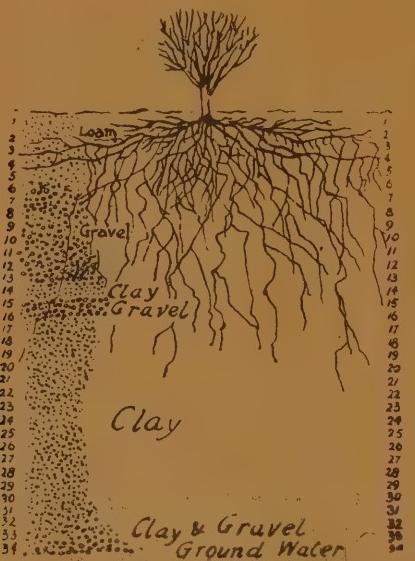
The White Adriatic and White Genoa are the best varieties for commercial purposes and can be thoroughly recommended for extensive planting. Very strong and healthy growers.

With reference to the Capri Fig, clients are informed that only a few are necessary, as this variety is utilised for cross fertilisation purposes only. The fruit is useless.

Planters must note that in some varieties Fig trees do not attain the same height as other deciduous trees, being, like walnuts, of thicker and more stunted growth, and we do not guarantee our Fig trees to be of the standard heights of our price list.

DEEP ROOTING OF PEACH TREES.

In the illustration below we show a peach tree that was grown at the Arizona experiment station. The soil or earth is shown to the depth of 34 feet, at which point the soil water or water table is found in this case. It will be noted that the roots reach a depth of 22 feet, and are then 12 feet above the water table or solid water in the soil. It will also be noted that the spread of the tree in no wise corresponds to the spread of the roots in the soil. It has been a popular fancy that the spread of the branches of the tree represents the spread of its roots. This fallacy should have been exploded without the use of diagrams, but it has not been.

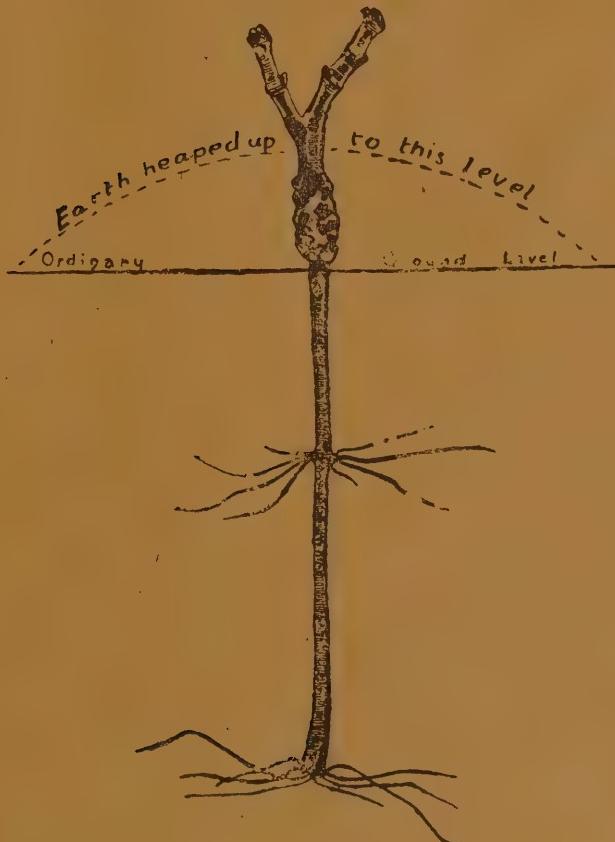


The most important lesson to be learned from this illustration is that soil of proper texture is able to support trees with very little moisture.

VINES.

We occasionally receive complaints as to dying of vines supplied by us. We must tell our clients that it is often through their ignorance of how to plant grafted vines correctly that leads to this unfortunate result.

We considered the matter of sufficient importance to have



the accompanying sketch made, showing exactly how they must be planted. As you will see they must be earthed up to within two or three inches of the point where they should be cut back. This is about six inches above the graft. This must be done *directly* after planting and should

be removed say 2 or 3 months later, and any roots being thrown out above the graft must then be cut off, the soil being again heaped up against the stem. This soil can permanently be removed the winter following. Where irrigation is necessary the water should be led around the mound of soil; there is no need to remove it during irrigation.

LIST OF VARIETIES.

ALL GRAFTED ON SPECIALLY SELECTED PHYLLOXERA PROOF STOCKS.

ALMERIA.—The white variety of this well-known grape.

BARBAROSSA.—Black round berry, tough hard skin. Late, good carrier; suitable for export.

BLACK PRINCE.—Ripens with Muscadel. Very large berry, but a shy bearer in some districts.

CRYSTAL.—A white round grape; mid-season. Good flavour and popular. Succeeds well in nearly all parts of the country.

GROS COLMAN.—Bunches and berries very large; the most handsome black grape grown.

HANEPOOT RED.—A similar grape to the White variety. Not so popular, however.

HANEPOOT WHITE.—An oval white Muscat grape. Very late. Superior flavour. Very popular everywhere.

HERMITAGE.—Medium size to large oval black berry. Good flavour. Carries well, and is suitable for export.

LADY DOWNES SEEDLING.—A round black grape, bunches long and closely set; very handsome; good carrier; late.

MUSCAT HAMBRO.—An oval black Muscat variety, mid-season; delicate in habit; of excellent flavour.

RAISIN BLANC.—Large late white grape. Good flavour and size. One of the most popular market varieties.

RED MUSCADEL.—Ripens very early; of considerable value as an early market variety.

SULTANA.—The seedless grape for raisin making.

WALTHAM CROSS.—An oval grape; very late; a good carrier; very large and handsome; keeps well after ripening.

CITRUS TREES.

This Department of our business has very largely extended. Needless to say, it is our aim to keep it up to date in every respect.

All the trees are grown in the Nursery to a single stem, and each tree is trained to a stake, and no expense is spared on them

Frequently they are delivered long distances within the Union and also outside its borders with a loss of less than one per cent., and there is absolutely no excuse for a planter not being able to establish with them a successful citrus grove, big or small.

The varieties of Oranges listed are well-known as being the best for commercial planting and general purposes. PICKSTONE'S WASHINGTON NAVEL, and VALENCIA LATE stand first and can be particularly recommended. All the Lemons listed can be relied upon as the best and most satisfactory varieties for African consumption and for export, and they have been thoroughly tested in most parts of the country.

The Winter Shipping Season for citrus trees begins in June and extends till August, and the Summer Shipping Season extends almost continuously throughout the summer from the beginning of November till the end of February.

The Citrus Trees—like all the others—are sold by height, which is reckoned from the bud or graft. The grading is liberally done. If there is any complaint it must be made immediately on arrival of the trees, otherwise it is difficult to rectify same. All trees are fumigated as provided by the Government Regulations before leaving the Nursery, and special care is taken that the fumes of the gas do not come into contact with the roots, as this, we believe, is the cause of much loss.

Our stock this season comprises 80,000 saleable trees, thoroughly free from disease and sound and healthy, and the Government Entomologist certifies to this effect, and we hope to supply all orders, no matter how large.

PACKING.—We have been at particular pains to make this a success. Having personally studied the various methods practised by the best growers in America and Australia, we have evolved our own process from the knowledge thus acquired, and we think it will not be questioned that the particular method we now adopt is an improvement upon others. We are constantly shipping trees packed in our special manner to distant parts of this continent, including Uganda, British East Africa, and to many places north of the Zambesi, with particular success. There are instances where the contents of the cases have lost their

leaves, and by the time the consignment has reached its destination, fresh and healthy ones have grown out.

TREATMENT OF CITRUS TREES ON ARRIVAL.—First of all it should be understood that extreme care is essential in the handling of Citrus trees.

To transplant a Citrus tree is almost like transplanting an Apple tree in full foliage; therefore the bare roots should not be exposed to the winds and sun for a single minute.

Immediately upon receipt of the consignment, it is well to apply a little water to both tops and roots, care being taken that there is a hole at the bottom of tin or case for such water to drain off. Then the case should be removed into the shade—a cool barn or some other cool building is best. In the event of the ground not being ready to begin planting, the case had best be left in the building untouched. The trees would keep thus for quite a while if occasionally watered. Except a very favourable spot is at hand, moist, cool and shaded, it is not advisable to unpack the cases and heel in as we recommend to be done in the instance of deciduous trees. Neither is it advisable to bury or put the trees into water in the event of their arriving dry and shrivelled. If by chance they arrive in this dry condition the leaves will in all probability fall off, but this will not affect the health of the tree or the successful transplanting of it. As long as the wood remains green and sound the tree is alive and well.

TIME TO PLANT AND SIMPLE DIRECTIONS FOR PLANTING.

TIME TO PLANT.—We have frequent enquiries from clients as to when is the best time to plant Citrus trees, and we wish to point out that this class of tree can be planted out whenever it is dormant, in fact we can supply them almost all the year round.

Any time from June 1st to March 31st is a suitable time to plant Citrus trees; the exact date dependent on your local conditions.

In giving instructions for date of despatch of citrus trees, in the summer season particularly, it should be endeavoured, where possible, not to tie us down to an exact date as the day, owing to climatic conditions, might be an unsuitable one for digging and packing trees.

We make it our aim, whenever possible, to select suitable days for this work, and like to avoid packing when there is a hot south-easter blowing.

It would be wise, also, when planting out to consider weather conditions. It is much better not to plant in the heat of the day or when a dry hot wind is blowing. Remember there is no great urgency about removing the trees from the case, and much rather leave them under cover unpacked than to plant when the conditions are unsuitable. Early morning or evening is the preferable time to plant.

PLANTING OUT OF CITRUS TREES.—A few hints to our customers as to the care necessary in the planting of Citrus Trees will not be out of place. A successful plantation should be assured in any part of South Africa if these instructions are carried out.

If the holes are dug (and it should be recognised as a necessity by planters that they are already dug on receipt of the trees) plant the trees at once, taking them from the case one by one as they may be required. Then immediately give each tree two or three buckets of water by hollowing out the soil round the stem sufficiently to allow the water to be received into a basin. When all the water has sunk away, and not till then, return the dry soil to the stem. Two or three days later repeat with a couple more buckets of water per tree, and again, as required. In fact keep the soil moist, but *not wet*, until the young tree is firmly established. There is another important matter which must not be overlooked. Immediately your trees are planted, have them cut down to, say 18 inches to 27 inches, according to size of tree, and get the stem protected *at once*, *vide sketch*. Personally we find coarse grass tied round with string as good as anything for this purpose. The stem of the tree should be covered with grass or newspaper, and thus absolutely protected from the sun, *vide sketch, next page*.

Another excellent plan to shade the tree is to drive in one or two laths of wood, say $\frac{1}{2}$ in. x 3 in., beside the stem of the tree on the side of the early afternoon sun. The lath should stick out on the ground about 18 in., and would also come in as a stake for the tree to prevent it being blown about by the wind, until the roots are established.

Still a simple plan is being recommended, and probably might answer the purpose: This is to apply to the stem a good coat of whitewash.

Now a last hint: do not put off either of these operations, viz.: the watering and the protection, a single hour after planting. They must be done *at once*. This is the secret of success. Do not wait until the leaves are dropping and the stem is shrivelling, as we see so many planters do, and then perhaps blame the nurseryman.

In this connection, however, we wish to draw attention to the fact that it is a mistake to abandon a tree until it is quite past recovery. Citrus trees are often given up for lost when perfectly good; until the tree becomes dried up and brown right down to the bud it is not dead. As long as there remains some green wood there is an almost certain prospect of young and healthy shoots being thrown out when the next period of growth commences. In Africa, as before stated, such periods of



growth occur from three to six times during the year. If a tree has been planted just at the termination of one, it may remain standing dormant for some months waiting for the next. It is then that it requires such particular attention for if neglected the leaves will certainly fall and the tree dry out to such an extent as will prevent its taking advantage of the growth to come. In cases where this happens, the only thing to do is to cut the

tree back to where the wood is green, and to continue attending to the tree until the growing time comes back once more.

In reference to the cutting back of the head immediately after planting, we may say that if this is not done the difficulties of getting the trees established are very much increased. Many planters seem afraid to cut their Citrus trees back (and their Deciduous trees too), which we consider a great pity.

It is often asked what is the object in paying for a tree three feet high or more, when it is to be cut back. We should have thought it would have been perfectly plain that in paying for first sized, one is getting a thicker and altogether a more vigorous tree; and what may be cut off from root or top in no way affects this.

DEEP PLANTING.—We again make no excuse for cautioning planters against planting too deep. With Citrus trees it is absolutely fatal sooner or later; they are bound to get collar rot, and, over and above this, they are not only much more subject to the attack of scale insects, but further, it is almost impossible to eradicate scale from trees planted in this manner, because the constitution of the tree is weakened.

RESPONSIBILITY FOR LOSS AFTER TREES ARE SHIPPED.

— It occasionally happens, perhaps months after Citrus trees have been delivered to the purchaser and planted out, that complaint is received of some having died off or refused to grow; and we are sometimes asked to replace such failures free of charge.

We take this opportunity of stating that under such circumstances as these, it is impossible to comply with the purchaser's request.

Much as we desire to assist our clients in every possible way to establish their Citrus Plantations, it is out of the question to undertake to do more than to deliver the trees in good condition, for after that is effected everything connected with them is beyond our control.

We know of frequent instances, usually when the work has been delegated to others, when the precautions recommended by us have been totally or partly omitted. When the trees arrive in good condition, it is possible to plant them out and get them established in the ground with little loss, *provided that they are given the care and attention they demand, and that the weather conditions are fairly favourable.* Unfortunately the planting is sometimes followed by most unfavourable conditions,

such as severe frosts and drought in the winter, or in the summer strong scorching winds, and some of the trees are bound to succumb. In ninety-nine cases out of a hundred the loss is through no fault of ours, and is often an inevitable result caused by adverse circumstances; so that although it is a source of great regret to hear when our clients have suffered in this direction, we are forced to place a hard and fast limit to our responsibility. It will have been observed that our prices are low, and that we effect free delivery on fair sized orders, and we feel sure taking all these circumstances into consideration our clients will agree that by delivering in good condition we are undertaking as much as can be reasonably expected.

CANCELLATION OF ORDERS FOR CITRUS TREES.—

Those desirous of cancelling their orders for large lots of Orange, Lemon, and Nartje Trees, should be most particular to do so early, and must do so *not less than three months before time booked for despatch*, otherwise the order will have to stand. There is a great demand for these trees, and we may be refusing orders, as has often occurred, owing to our stock being booked up as sold, thus if large orders are cancelled, the result is that we have disappointed and inconvenienced clients who were badly wanting the trees, and on top of this the trees are likely to be left on our hands unsold for another year, when they would be old stock of little value to our Trade. This is to explain that unless long notice of cancellation is given, we stand to be heavy losers.

VARIETIES.

The varieties marked with an asterisk () are those that our firm have introduced to South Africa, and a reference to these will show to what a large extent the present position of the Fruit Trade within the Union—and also outside—is due to the enterprise of our firm during the 24 years of its existence.*

ORANGES.

BITTER SEVILLE (Seedling trees).—The well-known variety from which marmalade is made.

CLANWILLIAM SEEDLING.—A selected variety of the celebrated Clanwilliam Orange. Fruit large and sweet; ripens mid-season.

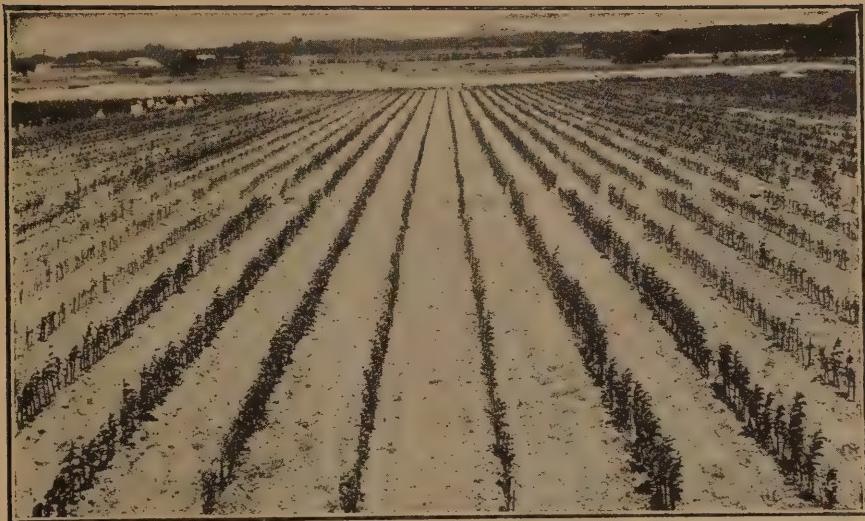


Photo by Gribble & Son]

[Paarl.

Block of 60,000 Apple Trees grafted on Northern Spy stocks.
Buds just starting growth.



Photo by Gribble & Son]

[Paarl.

Section of Fire-proof Record Room.

(We have all the correspondence for over 20 years, so that at any time,
at the request of our clients, we can supply them with information
as to the trees sent them).

[Panl.

Photo by Gribble & Son] The Packing Sheds. (Since enlarged.)



[Panl.

One of the Nursery Wagons.

Photo by Gribble & Son]



Photo by Gribble & Son]

JAFFA.—Imported from Syria. Medium to late ripening. Thornless. Very heavy and rich; almost totally seedless. A grand sort and heavy cropper.

JOPPA.—A California seedling grown from a seed received from Palestine. Fruit oblong, almost totally seedless, thin rind, very juicy and sweet; can hang long on the tree.

***MEDITERRANEAN SWEET.**—Thornless, low, spreading tree, inclined to dwarf; very productive. Fruit oval, medium size; rich orange colour, inclining to thick skin. Flesh soft, juicy, and very sweet and luscious. Season middle to late. Shipping quality of the best.

***NAVELENCIA.**—A new variety that is commanding some attention from growers. It is said by the originator to be a cross between the Thompson's Improved Navel and the Valencia Late, for it is claimed for it the good qualities of the former, together with a lateness in ripening which makes its season 30 to 60 days later in ripening than the Washington Navel, thus affording a market of its own between the marketing of the Washington Navel and the Valencia Late. Does not, however, here bear out this promising result. Tree of good robust growth, small thorns, full well-rounded top, hard glossy foliage, in character and habit closely allied to the two other Navels; fruit of good size, smooth and thin skinned, and comes into bearing second year from the bud.

***PAPER RIND ST. MICHAEL.**—Tree vigorous and of excellent habits; light thorns; heavy bearer. Fruit small, round, very solid and heavy. Skin thin; smooth and very fine texture; colour pale, almost lemon; membranes thin; grain fine; most abundant juice; sprightly excellent flavour. A general favourite; season middle; shipping quality best.

***PICKSTONE'S WASHINGTON NAVEL.**—Owing to the number of different sorts and qualities of Navels in South Africa, some of which, although true Navels, were worthless as regards quality and others very mediocre, our Principal, recognising the great future before our Citrus Export Industry, specially went to Southern California in 1903 to secure the best possible strain of Navel. The resulting trees have come into bearing the last few years, and have been exported with remarkable success, and delighted London buyers. Season 1913, each single orange, averaging several hundred cases, fetched 3d.; season 1914, market low in London, as you all know, average 18s. per standard case, covering the entire shipments for the season.

In future we restrict ourselves to the sale of this strain of Washington Navel only, and attach our name as a guarantee of our full confidence in its future. We carry large stocks for delivery from June onwards.

***RUBY BLOOD.**— This is the best of the Bloods, of medium size nearly round; skin thin, but very tough; pulp melting, rich, juicy. As the fruit ripens it usually becomes streaked or mottled with blood red; often the entire pulp gets ruby red, showing through the peel in a reddish blush on the outside. One of the best blood oranges. The tree is vigorous, nearly thornless and a regular bearer.

***THOMPSON'S IMPROVED NAVEL.**—In character and habit closely allied to the Washington Navel. Fruit of medium size, smooth and thin-skinned, good flavour, and comes into bearing early. Its keeping qualities are equal to those of the Washington Navel. Its splendid appearance, fine texture of peel, superb colour and eating qualities render it an especial favourite among consumers. Shows no quality superior to Washington Navel in Africa.

***VALENCIA LATE.**—Tree of very fine and vigorous growth; light thorns. Early in bearing and prolific. Fruit of medium size, oval, solid, heavy. Light colour. Skin rather thin and of strong texture. Flesh of deep and very rich colour, grain fine, firm and crisp; abundant juice; excellent flavour, the quality that suits the hot months. Season latest, being prime after other varieties become stale, and maintaining fine quality through summer and autumn. Of best shipping quality, and reaches the market when there are no other oranges to compete.

GRAPE FRUIT.

***MARSH'S SEEDLESS.**—Medium size. Thin rind, with about half the usual bitter. It is a true grape fruit and not a hybrid, with all the characteristics of the common varieties, with the exception of being almost absolutely seedless. Sometimes you will find a fruit containing three or four shells of seeds, but as a rule it has none at all. With the absence of seeds, the amount of juice increases, the flavour improves, and the fruit retains its noted qualities, and the pulp or meat is dark and rich. In serving this fruit you are not required to remove from 80 to 90 seeds, as is necessary with our common grape fruit, but is ready for the table when cut in halves. The fruit is known to be a late

keeper. The fact of its not having seeds that germinate when left late on the trees or in storage, increases its keeping qualities to a great extent, and is another factor greatly in its favour. A three-year-old bud will bear all the fruit it should hold at that age.

LEMONS.

***EUREKA.**—Tree nearly thornless, of rapid growth, and prolific bearer. Fruit of the best quality; a general favourite.

GENOA.—Medium size, a long oval; thin and smooth skin; of good shape and appearance; juicy, and of the very best quality. We consider to have in every respect a first-class lemon one need go no further than this variety; grows freely in nearly all parts, and bears abundantly.

LISBON.—Same as Genoa.

***VILLA FRANCA.**—A strong growing variety; thornless, or nearly so; fruit oblong, juicy, and nearly seedless. Sweet rind.

LIMES.

***TAHITI.**—This variety carries fruit about as large as the lemon. Very juicy, and of best quality.

NARTJES.

As compared with Lemons, Grape Fruit, and Oranges, trees of the Nartje family give a more fragile growth in the early years of their existence.

CAPE NARTJE.—Can be in every way recommended; a selected variety.

AUSTRALIAN MANDARIN.—An early variety, thin skinned, strong grower.

DANCY'S TANGERINE.—A great favourite in California. At Drakenstein this Tangerine has proved a strong growing, heavy bearing tree, and the fruit is of good size, appearance and flavour. It appears to be a similar fruit to the common Cape Nartje. The flesh is solid and skin thin.

***OONSHU (SATSUMA).**—Medium, flattened. The colour is not red, but a deeper yellow than the Mandarin; rind and segments part freely; flesh fine-grained, tender, juicy, sweet, and delicious; entirely seedless; one of the earliest sorts known; fruit ripens as early as April. Tree thornless and bears young. Said to resist 10 to 15 degrees of frost.

KUMQUAT.

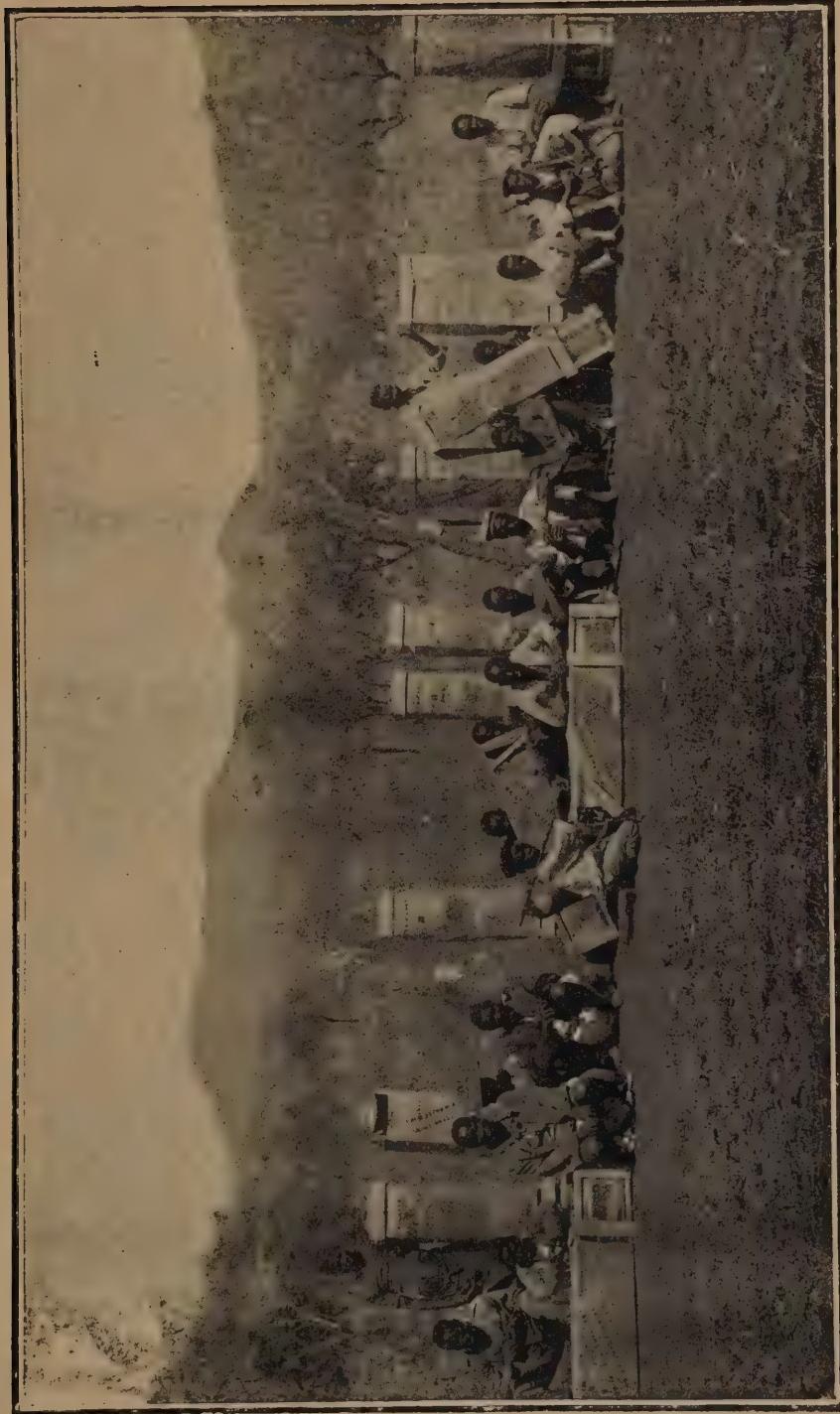
A small decorative fruit of the Mandarin class, but about one-quarter to one-third of the latter's size, of no value commercially, except for confyt making. In China it is largely used for this purpose. Tree of strong and upright habit of growth.

CITRONS.

This is the variety from which an essential oil is obtained. The rind, when cured, is known as "citron rind" or "succade."

SITE FOR CITRUS ORCHARD.

In deciduous planting, we often have reason to deplore the absence of data as to whether trees will grow or not. As in deciduous trees, where the seedling and coarser sort of grafted tree will thrive, it does not follow that the more delicate and more valuable fruits will always do well. We consider that in Citrus growing it can be *practically* recognised as a fact that when seedling oranges will grow and thrive, improved varieties will also do so. We are therefore at once placed in the position of having data in citrus growing, practically all over South Africa. This helps us considerably. In fact, we consider very good work has been done in orange-growing as regards sites. It has actually proved all through this Province, the Orange Free State and Transvaal, the best districts and the most favourable sites for planting. The opening up of the higher tableland for citrus planting would have been quite a problem without such data, as it has been demonstrated that it is only certain localities that are at all suitable, owing to the prevalence of frost in the higher veld. One site may be perfectly free from frosts, whereas another, a few hundred yards away, is swept by frosts or cold winds which would render the planting of citrus trees a fatal investment. It takes years to arrive at this knowledge, and it is the years of settlement, mainly by the



Resting. A consignment of our Trees *en route* for Central Africa
by Native Carriers.



Photo by Gribble & Son] Springtime in the Wickson Orchard.

[Paarl.]



Photo by Gribble & Son]

Picking Pears for Export.

[Paarl.]

Dutch, that has given us this valuable knowledge. Take Florida; every orange grower knows how the State has been devastated by occasional frosts, which have swept through wide stretches of the country, cutting down to the ground thousands and thousands of acres of bearing orchards. We take the Florida situation in this way. The old Portuguese settlements along the coast had luxurious old orange groves, which as the State was developed and as the transport of fruit to northern markets became a fact, were found to pay well. Thereupon land speculators and others boomed the country as an orange-growing country, and the boom took on. People rushed to the conclusion that because orange trees in old orchards thrived in certain districts, that large stretches of country were equally suited, consequently trees were planted out by thousands in districts that might not perhaps catch a frost in ten years. Therefore let us use the data which is before our eyes over this country, and recognise that the limit of citrus culture is in no particular area of altitude or otherwise, but that right through the whole country, regardless of the general conditions prevailing in the district, there are sheltered spots eminently suited for our purpose, many of which have already been located for us. Given a site where temperature is right, and also a water supply, and the next point to consider is the character of the soil. There are no two opinions on this point. Citrus trees to grow healthy and live long (in other words to pay well) must be planted on *well drained soil*; personally, we infinitely prefer a soil naturally well drained; in fact, a naturally dry soil, which is of such a character that it readily accepts water into its depth. Of such class of soils there are hundreds of thousands of acres in South Africa, provided the necessary water could be brought into them in sufficient quantity for practical purposes. We should always avoid sites which are naturally moist and wet, as the trees will never give satisfaction in such a location. We remember a noteworthy case in point. The late Mr. Rhodes, some 19 years ago, despatched a consignment of orange trees to Rhodesia to be distributed for planting; a couple of hundred were planted on his own farm in the Matopos, the only water supply there at that time being a windmill pump, delivering the water into tubs. The well had as usual been sunk in the part of the farm which showed indication of being the wettest, and the trees were planted in a couple of acres of land adjoining the well, so that they would be handy for watering by means of barrels, which were, we believe, placed on a sledge for this purpose, the idea, of course, being that by placing them near the water they would be less likely to suffer, consequently they

were standing in soil where we feel certain they could not do themselves or anybody else credit. Here is the point in planting citrus orchards: *Don't take your trees to the water, but lead your water to the trees.*

The site secured, which should be a sheltered one, little affected by frost, the next vital consideration is water; we think that in only very few favoured spots in South Africa can citrus growing be made profitable without water. We would ourselves hesitate to recommend the planting of such an orchard without having a water supply behind it proportionate to the number of trees to be irrigated.

SETTING OUT AN ORANGE GROVE.—There has been a little difference of opinion as to whether it is best to plant trees direct from tins or with bare roots. We have satisfied ourselves that if well dug and every detail of the packing is carefully done, Citrus trees packed with bare roots can be safely transported any distance throughout Africa with only a very small loss on being planted out. But growers must remember that a plant in foliage at the time of planting needs much more careful attention, as although the tree may be quite dormant at planting there must necessarily be a good deal of evaporation through the leaves, and this evaporation must be met by keeping the soil around the tree moist.

At once after planting we recommend the trees should receive water, and that the surface of the soil around each tree should be mulched with hay, straw, grass or bushes, or indeed anything which will retain the moisture; it is almost essential to protect the tree from the direct rays of the sun, either by reeds, stakes, bagging, or indeed anything which will serve the purpose. The defoliation of the young trees to prevent evaporation is not always desirable, as the benefits derived from it are sometimes counteracted by the danger of having the tree scorched by the winds, which are very prevalent throughout the country, and therefore particular care must be taken to have it well protected.

DON'T PLANT TOO DEEP.—It is a mistake which is very generally made throughout the country, and is of vital importance. In Florida, where the soil is shallow, and the climatic conditions are equable, trees are often planted on the top of the ground, and the soil thrown up against them; we do not of course advocate this, but we do say keep the place where the bud

is inserted well above the ground, letting the crown of the roots be covered a few inches only. Many growers have told us that it is impossible to keep trees clean from scale if they have been set too deep; we cannot state this from our personal experience, but we do know that in Florida it is generally recognised to be a fact, and it must be borne in mind that Florida is a state of *shallow soils*, and in many instances we believe badly drained, whereas California is a country of deep soils. We feel satisfied that in shallow soils deep planting will certainly bring an orchard into an unsatisfactory state sooner or later, while in deep soil it is still quite an important matter to keep the trees well up in planting.

Never manure your trees when setting them; it is a dangerous thing to do; wait until your trees are well established in a few months, then the manure can safely be applied and will be readily and promptly brought into solution by the irrigation water, which should be immediately applied. The tree should then very shortly respond.

STOCKS.—This is an important point on which we receive frequent inquiries. Many appear to be in a state of uncertainty as to what Stock is best for the orange. As stated in our "Hints on Fruit Growing," we have tested nearly all the various stocks which have from time to time been recommended, and though we continue to carry a small stock of trees worked on to these different roots, the stock we have adopted for general use is the Rough Lemon, and this we hope to continue to use until something which proves definitely better is brought to light. Our reasons for using the Rough Lemon in preference to others are that it is robust and healthy, it is the only stock which has lived and thrived in this country for centuries under all sorts of adverse conditions, and in fact it is said by some to be indigenous to parts of South Africa. Nearly every variety has proved successful upon this stock.

The Bitter Seville, though a suitable stock for the lemon, has proved perfectly useless for nearly every variety of orange. The Sweet Orange stock seems very subject to root disease, and as regards the Pomelo, we have had a large plantation of various kinds of Oranges worked on the Californian Pomelo under observation for years, we find it has an undoubted tendency towards dwarfing the tree, as does also the Trifoliata, but to a much greater degree.

We have seen it stated that any sour stock, such as the Rough Lemon, has a deleterious effect upon the fruit,

causing it to be sour, thick pulped, &c. We are perfectly convinced that this is a fallacy. The stock has no direct influence whatever upon the fruit, though it influences the growth and habit of the tree; a dwarfed stock, for instance, making a dwarfed tree, and a free growing stock having the opposite effect.

We have proofs without number that fruit is not influenced by the stock, and do not know of any instance where the effect is contrary. Amongst well-known instances may be mentioned the pear upon quince, the apple upon crab, or the grape worked on to wild American root. In each of these cases the fruit of the stock is very sour and bitter, yet the fruit produced by the scion is identically the same as if it were grown on its own root. When fruit of the grafted Citrus tree varies, as it sometimes does, it is on account of difference of situation and soil, or cross fertilisation, and has nothing whatever to do with the stock.

IMPROVEMENT IN VARIETIES.—Amongst growers there is still considerable uncertainty as to whether the right and proper thing is being done in discarding seedlings for what are called "new varieties," arrived at by either budding or grafting; we are very solid on this, and give below the points in favour of the respective views.

Those who favour the planting of seedlings will agree that a seedling is hardier, grows larger, and therefore bears bigger crops. This we will readily admit.

The advocates of the budded tree will claim the fruit fetches a higher price, and tree comes into bearing earlier. Also true.

We give our verdict in favour of the newer varieties.

Firstly.—Because we consider the seedling tree planted on good soil here grows so freely that when it becomes over fifteen years of age, it is almost an impossibility to eradicate the pests that affect it; it grows to a size, which makes it very difficult to fumigate, and it is much more difficult to get at with a spray. Whereas a budded tree would take a great length of time to attain the same size, even if it will ever do so, we ourselves having never seen a worked orange tree of much above 15 feet high, therefore a budded tree can be readily fumigated or sprayed even when it attains great age.

Secondly.—The seedling will not come into bearing until the eighth or ninth year, whereas a healthy budded tree will come into bearing and pay well in the fourth year.

Thirdly.—Because a budded tree can be planted closer than a seedling, 18ft. to 25ft. being ample distance apart for worked citrus trees, whereas a seedling should be set at 30ft. apart, giving a greater number of trees to the acre.

Fourthly.—Because by the planting of budded trees the season for harvesting the crop is considerably extended, always an important point in commercial fruit growing, invariably resulting in better prices.

Fifthly.—Because it is always advisable to allow the opinion of other people and the trend of work being carried out in other countries who are engaged in kindred enterprises to influence one, and thus we find the planting of seedling oranges in California practically discontinued. We have ourselves worked in several Citrus Nurseries there, and can truthfully say that we have never seen a seedling sold.

It should be noted that the fruit of the Citrus Family does not always attain perfection the first year of bearing. The first fruits are inclined to be thick pulped and are sometimes deformed. It is often not until the second or even third crop that fruit is seen at its best.

Again, in Australia, where in localities considerable attention is being given to citrus growing, we find the planting of only the very best varieties of grafted trees being advocated, planters finding out that they have many varieties of budded and grafted trees which are of inferior value.

In Spain, in "La Vuelta" of Valencia, which is a large stretch of very valuable, irrigable land, stretching many miles, and from which the English market draws a large part of its supply, and where we have seen tens of thousands of newly-planted orange trees, grafted trees, and nothing else, are being planted. We can only add, in conclusion, that buyers of oranges in the Colonies are quite willing, and indeed do pay in many instances double the money for the fruit of the improved varieties.

"PENNY WISE AND POUND FOOLISH."

By R. A. DAVIS, CHIEF, DIVISION OF HORTICULTURE.

Reprinted from "The South African Fruit Grower" for December, 1916. By kind permission of the Author and Publishers.

The above adage is often made use of in all walks of life; even Governments, Municipalities, and other Corporations have been known to be accused of guiltiness in that direction. In no case, however, is it more marked than in the purchase of fruit trees from nurserymen and others. During the last few years in South Africa matters have been going from bad to worse in this direction and the writer has in his travels through the country seen so much of it that he has been compelled to rush into print.

The "boom" in Orange Planting is largely responsible for what has happened in the citrus nursery line. Enquiries for young trees by the thousand were, and still are, frequent, and supplies were short. Anxiety to plant as soon as possible led purchasers to accept trees altogether too small to be removed from the nursery, it also led nurserymen to prostitute their principles and supply customers with trees which should not have left the nursery for another year. In some cases purchasers beat down prices, in others competitive producers cut prices to secure an order.

The prospective planter of an orange orchard, which he fondly anticipates will bring in £100 per acre per annum, is often willing to haggle for one penny over the price of nursery trees—he knows full well that he ought to buy the best he can get, yet he is willing to sacrifice quality and future success to a disinclination to pay a fair price for a good article. •

Another cares only to plant a tree as long as it is a tree. It will, in time and with luck, grow bigger, so why should he pay £15 per 100 for big trees when he can get little ones—just as good, only smaller—for £5? The writer recently saw some 2,000 little budded orange trees from 4 to 6 inches high, planted out, orchard form. The price paid was £5 for 100, and the owner fully expected a large crop in five years or so. "What a hope!"

Then there is the other fellow who wants the biggest and best trees he can get, nothing under three or four years old will suit him, and he is willing to pay for these trees if he can only get them—well, he can't get them, or, at any rate, only very rarely, so he misses a good tree and the nurseryman loses good money.

For Prices see page 12.

The curse of the Orange Industry of the future is the "cheap tree" of to-day. The man who plants orange trees should plant the best and the best only; the same hold good with respect to any fruit trees. He should be prepared to pay a fair price for a good article. Now what is a good article—what are first size and second size trees? A good young orange tree, standing in the nursery, should have a stem as straight as an arrow, measure 4ft. to 5ft. high, and caliper $\frac{5}{8}$ in. six inches above the bud mark. Or, if he buys trees with ready formed heads they should have a clean straight stem for 27 inches, then three branches placed symmetrically round it, so that the future tree will have a well balanced head. Such trees are good first size trees.

In the nursery rows there are some trees which do not thrive as well as the others, they hang back, and do not seem to want to grow. There does not seem anything the matter with them. These are left behind when the first size trees are dug up, so that they may get a little bigger. These are second size trees.

Another kind of second size tree is that which is budded and forced to grow at top speed by means of plenty of fertiliser and water until it gets from 18 inches to 2 feet high—then it gets sold at the rate of £10 per 100 or so; and usually 20 to 40 per cent. die, after being planted out, especially if sent some days' journey by road or rail for planting. Those that do not die, do not make much haste about growing, they miss the stimulants to which they have been accustomed.

The greatest development in the history of the Citrus Industry has taken place in California. This is a fact which no one attempts to dispute. In California the lowest price orange trees are about 3 s. each; the usual price paid, in nine out of every ten cases, is 5s. each. Growers there want the best trees they can get, and are willing to pay a fair price for them. Growers in South Africa do not want the best trees they can buy from nurserymen; they want the cheapest, or rather, the lowest priced, and low-priced things are rarely cheap. This is the difference between California and South Africa. This country can never rival California in citrus production, in quality or bulk, unless and until orchardists will make up their minds to have the best, and that only. I admit I should like to be a Dictator of South Africa for a day, because my first act would be to make it a criminal offence for any man, or woman either for that matter, to deal in rubbishy nursery stock—either as buyer or seller.

VALUABLE TABLES.

Number of trees on an Acre at various Distances:—

| | |
|-----------------------------|-----|
| 10 feet × 10 feet | 435 |
| 11 feet × 11 feet | 360 |
| 12 feet × 12 feet | 302 |
| 13 feet × 13 feet | 257 |
| 14 feet × 14 feet | 222 |
| 15 feet × 15 feet | 193 |
| 16 feet × 16 feet | 170 |
| 17 feet × 17 feet | 150 |
| 18 feet × 18 feet | 134 |
| 19 feet × 19 feet | 120 |
| 20 feet × 20 feet | 108 |
| 21 feet × 21 feet | 98 |
| 22 feet × 22 feet | 94 |
| 23 feet × 23 feet | 82 |
| 24 feet × 24 feet | 75 |
| 25 feet × 25 feet | 69 |
| 30 feet × 30 feet | 48 |

To ascertain the number of trees or plants required for an acre: Multiply together the distance that the trees are to be set apart each way and divide this into 43,560 (the number of square feet in an acre), which will give the number required.

DISTANCES FOR PLANTING.

All varieties in Catalogue 20 feet apart each way, with the following exceptions:—

| | |
|------------------------|---------------|
| Quinces | 10 feet apart |
| Vines | 5 feet apart |
| Loganberries | 6 feet apart |

TIME OF BEARING.

Apples may be expected to come into bearing the 3rd year to 6th year, dependent upon variety.

Pears may be expected to come into bearing the 5th or 6th year, dependent upon variety.

Peaches may be expected to come into bearing the 3rd year.

Apricots may be expected to come into bearing the 4th year.

Plums (Japanese) may be expected to come into bearing the 3rd year, dependent upon variety.

Plums (Domestic) may be expected to come into bearing the 5th year, dependent upon variety.

Cherries may be expected to come into bearing the 5th year, dependent upon variety.

Almonds may be expected to come into bearing the 4th year.

Walnuts may be expected to come into bearing the 6th year.

Quinces may be expected to come into bearing the 3rd year.

Figs may be expected to come into bearing the 2nd year.

Vines may be expected to come into bearing the 2nd year.

Citrus trees may be expected to come into bearing the 3rd year.

TESTIMONIALS.

A few out of an enormous number of Testimonials received during last season:—

DECIDUOUS TREES.

RUSTENBURG, Transvaal.—I have to acknowledge receipt of the trees and have to thank you for good treatment. I would state that the trees arrived in excellent condition, and if I do not succeed with them I shall only have myself to blame.

SOTIK, B.E.A.—The trees we got from you recently have given satisfaction, only a few of the deciduous trees having failed.

SALISBURY, Rhodesia.—I am pleased to inform you that I have not lost one tree, and most are now in leaf and bloom. My neighbours, who obtained their trees from other firms, have lost several from various causes, chiefly by white ants.

MOCHUDI, B.P.—We have to-day had a letter from our Farm Manager, who writes that the trees arrived in good condition, and that he planted the last 100 next day. As these trees had to wait here for a week, and then had an ox wagon journey of 60 miles, we are very satisfied to have this report.

PALMFORD, Transvaal.—I have much pleasure in informing you that the trees arrived in good order and condition. The trees were well packed and consequently in good order, and did not show any signs of having travelled such a long distance.

JOHANNESBURG.—I am pleased to be able to tell you that the 500 trees, with the exception of one, are all growing. We have had, so far, a very unfavourable season.

FRANKFORT, O.F.S.—I wish heartily to thank you for the manner in which my order was carried out; the trees arrived in first-class order and absolutely as ordered.

SALISBURY, Rhodesia.—The trees arrived in splendid condition. I never expected such fine specimens.

ELMENTEITA, B.E.A.—With reference to my letter of a few days ago notifying you of the non-arrival of the trees, I am pleased now to inform you that these came to-day. Notwithstanding that it is nearly three months since the trees were despatched from you, I was more than surprised when I opened up the citrus trees to see in what excellent condition they were in.

MACEQUECE, P.E.A.—The fruit trees arrived here in splendid condition.

BOKSBURG, Transvaal.—I have much pleasure in acknowledging receipt of fruit trees forwarded by you on the 14th inst. The package arrived in splendid condition, and I am well satisfied with the contents. Should they fail to grow the fault will certainly not be yours.

SALISBURY, Rhodesia.—The trees arrived in perfect order, and I am exceedingly well pleased with them.

BULAWAYO, Rhodesia.—I never received trees in a healthier and better condition from any nurseries in South Africa.

TEYATEYANENG, Basutoland.—All the trees and vines bought from you the last few years are growing.

WEST NICHOLSON, Rhodesia.—Am pleased to say that the trees arrived in very good condition and all thriving well since planted.

MAURITIUS.—The shipment has arrived in good condition, and we thank you for same.

MACHAKOS, B.E.A.—I did not expect to get one tree alive, considering this consignment has taken more than three months en route, but to my surprise all the deciduous and citrus trees were in good condition, and I must congratulate you on your packing.

BULAWAYO, Rhodesia.—The trees have arrived in splendid condition, and look as if they have only just been taken out of the ground instead of travelling 1,400 miles in a goods train.

ST. HELENA.—The fruit trees duly arrived, per *Cluny Castle*, on the 30th ult., which I am pleased to say were in good order, due to your prompt attention to the order, and likewise to you excellent mode of packing. I may say that general satisfaction was given to the several parties for whom they were imported.

NDOLA, N. Rhodesia.—Some of the trees are now bearing, and all are looking in first-class condition.

BULTFONTEIN, O.F.S.—It will interest you to know that I have been very successful with the trees ordered last year. They give every satisfaction, taking into consideration that I have a very small water supply, and besides the rainfall has been exceptionally low here last year. Apart from all that, ants are a great drawback to trees in this part of our Province, yet I am pleased to inform you only one tree has been destroyed by ants, namely, a Tongress Pear.

MOAMBA, P.E.A.—I beg to acknowledge receipt of bundle of fruit trees and vines, and am pleased to say that there is not a failure amongst them. They arrived in excellent order.

BEIRA, P.E.A.—You will no doubt be pleased to hear that the plants you sent me last year are doing well.

UMTALI, Rhodesia.—The fruit trees arrived in first class condition, and I am more than satisfied with the quality. Allow me to thank you for prompt delivery and assistance in selecting same.

SALISBURY, Rhodesia.—I should like to congratulate you on the splendid health of the consignment of trees, with which I am most pleased.

TETE, P.E.A.—Thanks for trees, which arrived in splendid condition, although I opened the bales 35 days after you despatched them.

CHIPINGA, Rhodesia.—Trees arrived in good condition, having been nearly five weeks on the journey.

FICKSBURG, O.F.S.—I take the opportunity of informing you that I have had such excellent results from trees supplied by you that I always recommend them to my friends. In this way I have sent numerous orders, directly and indirectly to you during the past eight years, and when visiting the country, I always endeavour to persuade farmers to establish an orchard of Pickstone's trees on their properties. Last year I grew peaches to anything I have ever seen, and my small orchard is something to be proud of. As a fruit grower (on a small scale) wherever I have lived, and it gives me pleasure to testify that they are hardy, vigorous, and the fruit always true to your description.

CITRUS TREES.

TWO STREAMS, C.P.—The trees arrived here safely on the 21st inst., and I am pleased to inform you that I am highly satisfied with them. They were nicely packed, and looked as fresh as when taken out of the ground.

MIDDELBURG, Transvaal.—I have to thank you for the 200 citrus trees sent. They arrived here in splendid condition, and the first lot are growing vigorously, and as far as I can see there is not one tree that looks like dying. The second 100 has only been in the ground three days, but they look even better than the first lot. The trees arrived here on the farm (40 miles from Middelburg and nearest station) exactly eight days after leaving the Cape, by motor from Middelburg.

MOSSEL BAY, C.P.—I have been looking at my orange trees, and am so delighted with them that as I have still a little ground that can be filled up, I would be glad if you will send me another 100 Washington Navel.

VILA PERY, P.E.A.—All trees received in good order and are growing well indeed.

SINOIA, Rhodesia.—I am pleased to say the 500 orange trees we received from you last year arrived in good condition, and are doing very well. We have lost only four of them.

ENKELDOORN, Rhodesia.—The trees arrived in a most satisfactory condition.

CHIPINGA, Rhodesia.—I was not able to fetch the trees when I expected, and only received them on the 1st inst., and planted them out to-day, just one month from date of despatch, and they are in very good condition.

SALISBURY, Rhodesia.—I have to-day heard from the farm that the trees have been received in good order.

UGIE, C.P.—The trees come to hand in splendid condition on both occasions, and are all growing.

SWELLENDAM, C.P.—Trees arrived safely and in good order.

UMTATA, C.P.—The trees arrived in grand condition; were immediately planted, and despite drought, are all looking well.

TZANEEN, Transvaal.—I am very pleased with the trees, Most of them made from six to ten inches of new growth within two months of planting.

